THE COLUMBIA JOURNAL OF
LAW & the ARTS

A QUARTERLY JOURNAL OF LAW AND THE ARTS,
ENTERTAINMENT, COMMUNICATIONS, AND INTELLECTUAL PROPERTY

2024 Symposium of the Kernochan Center for Law, Media and the Arts:
"Past, Present and Future of Copyright Licensing"

Vol. 48, No. 4 ♦ Symposium Issue

COLUMBIA LAW SCHOOL

THE COLUMBIA JOURNAL OF
LAW & the ARTS

VOL. 48 **NO. 4**

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Produced and published by members of the Columbia Journal of Law & the Arts.
All members are students at Columbia Law School.

Columbia Journal of Law & the Arts (JLA)
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435 West 116th Street
New York, NY 10027
jla-editor@law.columbia.edu
http://www.lawandarts.org

ISSN (Print): 1544-4848
ISSN (Online): 2161-9271

Cite this volume: 48 COLUM. J.L. & ARTS.

Typeset in Crimson Text.

Printed in the United States of America.

Printed by Sheridan PA, a CJK Group Company

Sheridan
450 Fame Avenue
Hanover, PA 17331

THE COLUMBIA JOURNAL OF
LAW & the ARTS

VOL. 48 **NO. 4**

VOL. 48 MASTHEAD (2024–2025)

Editor's Note
on the Symposium Issue

Each academic year, the *Columbia Journal of Law & the Arts* publishes an Issue dedicated to the annual Symposium of the Kernochan Center for Law, Media and the Arts, which is hosted at Columbia Law School. This year's Symposium was titled *Past, Present and Future of Copyright Licensing* and was held on Friday, September 27, 2024. As always, the *Journal* was honored to participate in the event and is pleased to publish the proceedings here.

There are two types of publications in this Issue. Each speaker was asked to select one of the two options: to write an Article based on his or her remarks at the Symposium or to produce a Transcript of his or her remarks. The Articles have been written, edited, and proofread to the same high standard as other academic articles published by the *Journal* in its non-Symposium Issues. The Transcripts have been edited lightly for concision and clarity. The pieces in this Issue are presented in the order in which contributors spoke at the Symposium. The Program of the 2024 Symposium on page *vii* of this Issue reflects the actual order of the speakers on the day of the event.

More information about the 2024 Symposium can be found on the Kernochan Center's website,[1] including readings for the event,[2] biographies of the speakers,[3] and video recording of the event.[4]

1. The 2024 Symposium webpage is at https://kernochan.law.columbia.edu/content/symposium-2024-past-present-and-future-copyright-licensing [https://perma.cc/48Q2-BXZQ] [https://web.archive.org/web/20250429122637/https://kernochan.law.columbia.edu/content/symposium-2024-past-present-and-future-copyright-licensing].

2. Readings for the 2024 Symposium can be found at https://kernochan.law.columbia.edu/content/2024-symposium-readings [https://perma.cc/CTZ3-8VWQ] [https://web.archive.org/web/20250429122137/https://kernochan.law.columbia.edu/content/2024-symposium-readings].

3. See *supra* note 1 for speaker biographies.

4. Video recording of the 2024 Symposium can be found at https://kernochan.law.columbia.edu/videos#!#%2Ffilter%2Fcat1%2FKernochan%20Annual%20Symposium%202024 [https://perma.cc/GCZ2-9E2G] [https://web.archive.org/web/20250429122749/https://kernochan.law.columbia.edu/videos#!#%2Ffilter%2Fcat1%2FKernochan%20Annual%20Symposium%202024].

Program of the 2024 Symposium

PANEL I — THE PUBLISHING INDUSTRY

Speakers:
Roy Kaufman
Anita Huss-Ekerhult
Matthew Stratton
Regan Smith

PANEL II — LICENSING IMAGES AND MOTION PICTURES

Speakers:
Ron Wheeler
Benjamin Marks
Nancy Wolff

PANEL III — THE MUSIC INDUSTRY

Speakers:
Judge Steve Ruwe
Elliott Peters
Joe Keeley
Lidia Kim

PANEL IV — COLLECTIVE LICENSING AND ANTITRUST CONCERNS

Speakers:
Tim Wu
Johan Axhamn
Judge David Strickler
Anu Sawkar

Responsible AI Starts with Licensing

*Roy S. Kaufman**

"Many people in this world are not raised to understand the concept of consent, in all walks of life, and it's important that abusers of consent not be treated as victims when they are rightfully exposed."

- X Gonzalez[1]

"Some customers are concerned about the risk of IP infringement claims if they use the output produced by generative AI. This is understandable, given recent public inquiries by authors and artists regarding how their own work is being used in conjunction with AI models and services.

To address this customer concern, Microsoft is announcing our new Copilot Copyright Commitment. As customers ask whether they can use Microsoft's Copilot services and the output they generate without worrying about copyright claims, we are providing a straightforward answer: yes, you can, and if you are challenged on copyright grounds, we will assume responsibility for the potential legal risks involved."

- Microsoft[2]

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* Roy S. Kaufman; Managing Director of Business Development, Managing Director of Government Relations, Copyright Clearance Center. Columbia Law School Class of 1991. This Article is a companion to a talk given at Columbia Law School on September 27, 2024.

1. *Emma Gonzalez Quotes*, BRAINYQUOTE, https://www.brainyquote.com/quotes/emma_gonzalez_1017731 (last visited Mar. 18, 2025).

2. Brad Smith & Hossein Nowbar, *Microsoft Announces New Copilot Copyright Commitment for Customers*, MICROSOFT (Sept. 7, 2023), https://blogs.microsoft.com/on-the-issues/2023/09/07/copilot-copyright-commitment-ai-legal-concerns/ [https://perma.cc/9YKH-9YDV] [https://web.archive.org/web/20250125001027/https://blogs.microsoft.com/on-the-issues/2023/09/07/copilot-copyright-commitment-ai-legal-concerns/]. On September 7, 2023, Microsoft's market cap was 2.4 trillion dollars. *See Microsoft Market Cap Sep 2023*, STATMUSE, https://www.statmuse.com/money/ask/microsoft-market-cap-sep-2023 [https://perma.cc/Q7TY-H634] [https://web.archive.org/web/20250216042111/https://www.statmuse.com/money/ask/microsoft-market-cap-sep-2023] (last visited Feb. 15, 2025).

I. RESPONSIBLE AI STARTS WITH LICENSING

Responsible AI starts with licensing. AI outcomes are strengthened by reliance on responsibly sourced, high-quality copyrighted works. Consent and human centricity are hallmarks of human advancement, and also will enable better AI.

The default position of our copyright system is that the person who wishes to use copyright protected works must seek out and obtain a license before engaging in conduct that would implicate any rights protected by copyright law to avoid an infringement claim.[3] This will only seem fair to most observers, given the intellectual and economic labor involved in creating original works, and also in light of the natural and economic justice of granting the creator the right to determine how her works will be used.

Of course, the copyright system contains exceptions in certain cases where authorization may not be needed at all (e.g., fair use in the U.S.[4]) or where rights are limited to non-negotiated licenses (e.g., non-voluntary licenses and/or levies[5]). But these exceptions or limitations to rights, in order to serve the public interest of promoting the creation and distribution of original creative works (as well as to comply with international law[6]), must be carefully circumscribed to avoid unfairly prejudicing the legitimate interests of the author. To be acceptable under the Berne 3-Step test,[7] they exist in areas of market failure.[8]

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3. *See, e.g.*, 17 U.S.C. § 501.

4. *See* 17 U.S.C. § 107.

5. *See* INTERNATIONAL FEDERATION OF REPRODUCTION RIGHTS ORGANISATIONS, COPYRIGHT LEVIES AND REPOGRAPHY (2008); *see also What Is Statutory Licensing?*, COPYRIGHT AGENCY, https://help.copyright.com.au/hc/en-gb/articles/360000006116-What-is-statutory-licensing (last visited Apr. 6, 2025) ("Statutory licences (or statutory exclusions from infringement) allow certain uses of copyright material, without the permission of the rights holder, subject to the payment of equitable remuneration.").

6. Specifically, to comply with the Berne Three-Step Test, which provides: "It shall be a matter for legislation in the countries of the Union to permit the reproduction of such works in certain special cases, provided that such reproduction does not conflict with a normal exploitation of the work and does not unreasonably prejudice the legitimate interests of the author." Berne Convention for the Protection of Literary and Artistic Works art. 9(2), Sept. 9, 1886, *as revised* July 24, 1971, *and amended* Sept. 28, 1979, S. TREATY DOC. NO. 99-27 (1986). Exceptions outside of the test are not Berne compliant.

7. *See id.*

8. *See* Neil Turkewitz, *Consent and Compensation: Resolving Generative AI's Copyright Crisis—A Review*, MEDIUM (May 29, 2024), https://medium.com/@nturkewitz_56674/copyright-2023-neil-turkewitz-2bf3772e0114 [https://perma.cc/Z66M-W9BD] ("[U]se of original content for training AI is a thoroughly consumptive use rather than a secondary one. Indeed, licensing one's works for AI training might represent a single transaction that exhausts the entire value of the underlying work. As such, it is vital that we eschew any mechanisms that undermine the value of that transaction — including opt-outs, non-voluntary licensing, extended collective licensing or levies. These are all tools that might be suitable for uses which are secondary in nature, but not for central economic activities. International law as expressed in the Berne Convention, the so-called WIPO Internet Treaties, and the WTO TRIPS Agreement also compels such an approach given the prohibition of formalities (opt-out would represent a formality) and the inability to create or maintain exceptions that would permit uses that conflict with a normal exploitation of works. While non-voluntary licenses and levies might mitigate some of the likely prejudice of unauthorized uses, they are strictly prohibited where they would, as would be the case with training AI, conflict with a normal exploitation of the work. In short, sound public policy and international law compel us to ensure the effective exercise of consent in an environment unobstructed by conditions extraneous to the exercise of consent.").

AI training generally requires the express and voluntarily granted consent of the author. Any other approach threatens fundamental values underlying our copyright system. This observation is grounded in a number of core truths: that AI training requires the reproduction of protected works; that copies of such works are not (only) ephemeral or transitory and are stored in a manner that permits their retrieval for the purpose of producing expressive output that derives from the training data; and that such AI output do, and are likely to, directly compete in the marketplace for expressive works with the works on which the AI was trained, as well as to unfairly displace licensing opportunities that would otherwise exist for authors of the original works.

As we approach how to balance competing interests around AI technologies, we are faced with a litany of arguments that copyright is somehow not fit-for-purpose for this AI. These are the same arguments that were raised with respect to the sound recordings, cable, the photocopier, the internet, and every new technology where one party wanted to make money through uncompensated and unconsented to use of another's creative works.[9]

AI is not as different as the advocates for unfettered, uncompensated reuse pretend.

In my experience in a government relations context, certain arguments against respecting copyright tend to be raised repeatedly. Some of these are made in good faith. For example, where to draw the line on fair use under U.S. law can be the subject of good faith disagreement. Other arguments, such as "we do not make copies," are frankly so factually inaccurate that the speaker risks their credibility. I also place assertions that "all training is per se fair use because it is transformative" in the latter category. U.S. law does not work this way.[10]

So, to level set, here are key points to consider:

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9. *See* George Thuronyi, *Copyright Law and New Technologies: A Long and Complex* Relationship, LIBR. OF CONG. BLOGS (May 22, 2017), https://blogs.loc.gov/copyright/2017/05/copyright-law-and-new-technologies-a-long-and-complex-relationship/ [https://perma.cc/R47X-GZ3Y] [https://web.archive.org/web/20250318113821/https://blogs.loc.gov/copyright/2017/05/copyright-law-and-new-technologies-a-long-and-complex-relationship/].

10. *See* Jane C. Ginsburg, *Fair Use in the US Redux: Reformed or Still Deformed?*, SING. J. LEGAL STUD. 52, 59–74 (2024) (noting that "[o]ne could espouse a principled position that 'new and important' additions to copyrighted works should not infringe; that the scope of copyright protection should be limited to verbatim, piratical copying. Such a position, however, is not the one Congress chose when it specified exclusive rights over derivative works, and when it directed courts to take into account not only the purpose and character of a defendant's use, but also the amount and substantiality of the use, and the effect of that use upon the potential market for or value of the copyrighted work. Many if not most derivative works 'add something new and important' to the works they copy and adapt; if that were all that was required to render the use 'fair,' then the use 'if it should become widespread, it would adversely affect the potential market for the copyrighted work' by usurping derivative works markets. . . . Looking only at whether the copying of works into training data is a 'transformative' fair use, [the *Andy Warhol Foundation* case] suggests that analysis may depend on whether there is a market for licensing content for training data. Such markets do exist, notably in news media, for high quality, reliable data, and other authors and copyright owners are endeavoring to develop those markets as well. In that event, even if the outputs might not infringe particular inputs, commercial copying (at least) to create training data would be for the same purpose, and might therefore fail a first factor fair use inquiry after [the *Andy Warhol Foundation* case], without a 'compelling justification' for supplanting authors' markets.") (footnotes omitted); *see also* Fox News Network, LLC v. TVEyes, Inc., 883 F.3d 169 (2d Cir. 2016) (finding transformative use was still not fair use).

II. LLMS TRAINED ON HIGH-QUALITY MATERIALS, INCLUDING COPYRIGHTED MATERIALS, PRODUCE BETTER OUTCOMES AND CAN FUEL INNOVATION. DISCLOSURE OF TRAINING MATERIALS IS EQUALLY IMPORTANT.

In May 2023, I posted about the importance of disclosure and data quality in AI,[11] borrowing a rubric from assessment, namely high stakes versus low stakes.[12] In that post, I explored the importance of using high quality materials for high stakes applications, and the importance of documenting and disclosing use of such materials:

> When using AI in high stakes decision making, you want to know that your training corpus . . . is pristine and you need to know what is in it. For a pharmaceutical company using AI for decision-making research purposes, the training corpus should be comprised of final Versions of Record (VoR). The researcher needs to know that the corpus excludes unwanted content, such as content sourced from predatory journals and/or "junk" science, for example.
>
> In a low stakes environment there can be a higher tolerance for ambiguity. The same pharmaceutical company researcher may need to simply identify potential experts in a field, which would require a less pristine training corpus; preprints can be included and perhaps even a little "junk" science may be acceptable.[13]

As mentioned in that post, while there can be some value even in "polluted" data, there is a point at which there is too much pollution for most uses. For example, "[b]ias in AI, including racial bias, is well documented."[14] Governments and governmental organizations are moving to regulate AI, focusing on issues such as ethical use and transparency.[15]

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11. Roy Kaufman, *Swimming in the AI Data Lake: Why Disclosure and Versions of Record Are More Important than Ever*, SCHOLARLY KITCHEN (May 15, 2023), https://scholarlykitchen.sspnet.org/2023/05/15/swimming-in-the-ai-data-lake-why-disclosure-and-versions-of-record-are-more-important-than-ever/ [https://perma.cc/ZC3Q-7B86] [https://web.archive.org/web/20250126035147/https://scholarlykitchen.sspnet.org/2023/05/15/swimming-in-the-ai-data-lake-why-disclosure-and-versions-of-record-are-more-important-than-ever/].

12. *See High-Stakes Test*, GLOSSARY EDUC. REFORM (Aug. 18, 2014), https://www.edglossary.org/high-stakes-testing/ [https://perma.cc/WW2N-YPJF] [https://web.archive.org/web/20250000000000*/https://www.edglossary.org/high-stakes-testing/].

13. Kaufman, *supra* note 11.

14. *Id.* (citing Bernard Marr, *The Problem with Biased AIs (and How to Make AI Better)*, FORBES (Sept. 30, 2022), https://www.forbes.com/sites/bernardmarr/2022/09/30/the-problem-with-biased-ais-and-how-to-make-ai-better/?sh=716485734770 [https://perma.cc/QR6P-WRYF] [https://web.archive.org/web/20250123175140/https://www.forbes.com/sites/bernardmarr/2022/09/30/the-problem-with-biased-ais-and-how-to-make-ai-better/?sh=716485734770]).

15. *Id.* For example, the OECD's ethical AI principles include: "AI Actors should commit to transparency and responsible disclosure regarding AI systems. To this end, they should provide meaningful information, appropriate to the context, and consistent with the state of art. . . ." *See Transparency and Explainability (Principle 1.3)*, OECD.AI, https://oecd.ai/en/dashboards/ai-principles/P7 [https://perma.cc/FB6S-H5TS] [https://web.archive.org/web/20250123180041/https://oecd.ai/en/dashboards/ai-principles/P7] (last visited Jan. 24, 2025); *see also* Regulation (EU) 2024/1689 of the European Parliament and of the Council of

III. AS MORE CONTENT ONLINE IS AI-GENERATED, ONLINE CONTENT BECOMES LESS RELIABLE

There is a significant body of research indicating that AI, when trained on AI generated content, results in "model collapse."[16] "In the long run, this cycle may pose a threat to A.I. itself. Research has shown that when generative A.I. is trained on a lot of its own output, it can get a lot worse."[17] While it does appear that the effect may be ameliorated by highly controlled efforts in some cases (including closed systems and use of specifically curated and tailored datasets),[18] as a general rule, it argues in favor of ensuring clean supplies of human-generated content are necessary for AI advancement.

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13 June 2024 Laying Down Harmonised Rules on Artificial Intelligence, and Amending Regulations (EC) No 300/2008, (EU) No 167/2013, (EU) No 168/2013, (EU) 2018/858, (EU) 2018/1139 and (EU) 2019/2144 and Directives 2014/90/EU, (EU) 2016/797 and (EU) 2020/1828 (Artificial Intelligence Act), 2024 O.J. (L. 1689) (imposing transparency requirements on AI developers); Generative AI Copyright Disclosure Act of 2024, H.R. 7913, 118th Cong. § 2(a)(1) (2024) (proposed); N.Y.C., NY ADMIN CODE § 20-871 (2021) (disclosure relating to AI use in hiring).

16. *See* Ilia Shumailov et al., *AI Models Collapse When Trained on Recursively Generated Data*, 631 NATURE 755 (2024); Matyáš Boháček & Hany Farid, *Nepotistically Trained Generative-AI Models Collapse*, ARXIV at 8 (Nov. 20, 2023), https://arxiv.org/pdf/2311.12202 [https://perma.cc/SK2Q-YN5L] [https://web.archive.org/web/20241217072634/https://arxiv.org/pdf/2311.12202] ("We find that at least one popular diffusion-based, text-to-image generative-AI system is surprisingly vulnerable to data poisoning with its own creations. This data poisoning can occur unintentionally . . . Or, it can occur from an adversarial attack . . . ."); Sina Alemohammad et al., *Self-Consuming Generative Models Go MAD*, OPEN REV. (Jan. 16, 2024), https://openreview.net/pdf?id=ShjMHfmPs0 [https://perma.cc/85EY-SQ9S] [https://web.archive.org/web/20250201165329/https://openreview.net/pdf?id=ShjMHfmPs0]; Yunzheng Feng et al., *A Tail of Tails: Model Collapse as a Change of Scaling Laws*. OPEN REV. (Feb. 10, 2024), https://openreview.net/pdf/b07c42e256e6df5c2c52aba4bf28c853110ebb7b.pdf [https://perma.cc/3K28-JV6T] [https://web.archive.org/web/20250219170546/https://openreview.net/pdf/b07c42e256e6df5c2c52aba4bf28c853110ebb7b.pdf]; Quentin Bertrand et al., *On the Stability of Iterative Retraining of Generative Models on Their Own Data*, ARXIV (Apr. 2, 2024), https://arxiv.org/pdf/2310.00429 [https://perma.cc/6AMS-KJJQ] [https://web.archive.org/web/20250126092916/http://arxiv.org/pdf/2310.00429].

17. Aatish Bhatia, *When A.I.'s Output Is a Threat To A.I. Itself*, N.Y. TIMES (Aug. 26, 2024), https://www.nytimes.com/interactive/2024/08/26/upshot/ai-synthetic-data.html [https://perma.cc/5B8K-XD4C] [https://web.archive.org/web/20250123175509/https://www.nytimes.com/interactive/2024/08/26/upshot/ai-synthetic-data.html]; *see also* sources cited *supra* note 16.

18. *See* Yunzhen Feng et al., *Beyond Model Collapse: Scaling Up with Synthesized Data Requires Verification*, ARXIV at 1 (Oct. 25, 2024), https://www.rivista.ai/wp-content/uploads/2024/11/2406.07515v2.pdf [https://perma.cc/D8VG-V3F5] [https://web.archive.org/web/20250219163558/https://www.rivista.ai/wp-content/uploads/2024/11/2406.07515v2.pdf] ("Large Language Models (LLM) are increasingly trained on data generated by other LLM, either because generated text and images become part of the pre-training corpus, or because synthetized data is used as a replacement for expensive human-annotation. This raises concerns about *model collapse*, a drop in model performance when their training sets include generated data. . . . We experiment with two practical tasks—computing matrix eigenvalues with transformers and news summarization with LLMs—which both exhibit model collapse when trained on generated data, and show that verifiers, even imperfect ones, can indeed be harnessed to prevent model collapse and that our proposed proxy measure strongly correlates with performance."); *see also* Lin Long et al., *On LLMs-Driven Synthetic Data Generation, Curation, and Evaluation: A Survey*, ARXIV (June 14, 2024),

Moreover, as a competitive matter, at the Copyright Clearance Center ("CCC") we have seen a desire by entities training AI systems to license content for training that is not available online. Legality of using publicly posted materials aside, there is no competitive advantage gained from using the same training materials as your competitors.

IV. COPYING TAKES PLACE WHEN CONTENT IS INGESTED INTO LLMS AND AI SYSTEMS. TOKENIZED AND VECTORIZED CONTENT IS STORED AND CAN BE RECALLED.

Copyright law seems complex, but at its core it is quite simple. It is the right to make copies. If copies are made without consent (i.e., a license), it is an infringement unless copying falls under a Berne-permitted copyright exception. So where are copies made?

A recent article co-authored in part by CCC colleagues entitled *The Heart of the Matter* explores the copying that takes place in the process of training AI models:

> LLMs make copies of the documents on which they are trained, and this copying takes various forms, and as a result, with appropriate prompting applications that use the LLMs are able to reproduce original works. The internal representations of the text on which they are trained, in purpose-built vector spaces, are very different in nature from those used in traditional search applications based on indexing because the latter systems consider only the relevance of a given query to the indexed terms of each document, they cannot recreate the indexed documents based on their internal representations—the only way to do this is to actually store a copy of the original text.
>
> It should also be noted that the various forms of copying involve copies that are permanent in nature, such as the initial copies in the training set or the internal representations of the processed text, and transient in nature such as copies made to support the transfer of information between different parts of an AI system or copies related to the output generated during the use of an AI system in what is typically called a "user session."[19]

AI systems "tokenize" words, essentially translating the expressions into numbers. In this process, LLMs make copies of the documents on which they are trained, and this copying takes various forms:

> The process of converting natural language text into a numerical representation involves several steps. The first step is known as "tokenization," which can range from simple separation of words based on whitespace or other separator markings, to more complex techniques like lemmatization and stemming, collectively referred to as "text normalization." Through this process, the natural language text is transformed into a

https://arxiv.org/pdf/2406.15126v1 [https://perma.cc/SG28-ZAZH] [https://web.archive.org/web/20250219160616/https://arxiv.org/pdf/2406.15126v1].

19. Daniel J. Gervais et al., *The Heart of the Matter: Copyright, AI Training, and LLMs*, J. COPYRIGHT SOC'Y (forthcoming) (manuscript at 5) (footnote omitted).

> set of tokens, which are then used to form a "vocabulary"—a list of tokens, each with an associated numerical value.[20]

After being tokenized, text is represented in "embeddings." Word embeddings capture the meaning of a word in the context of the words that surround it as found in the text. In other words, embeddings capture, store, and make use of the author's expression:

> [W]ord embeddings capture, in a dense vector representation, the meaning of a word in the context of the words that surround it, as found in the text that is used during training. So, in essence, word embeddings are a mathematical construct that can efficiently capture the meaning of words based on the various contexts (i.e., word sequences) in which a word can be found. This has been known since the 1950s as the distributional hypothesis. Word embeddings are fundamental blocks during the construction and operation of LLMs . . . .[21]

Numerical representations of the training data that are permanently embedded in LLMs may be considered copies, translations or adaptations of the original works of authorship:

> What the AI models retain post-training are contextual word embeddings that encapsulate the relationships between words in lengthy sequences. The capacity of such systems to reproduce verbatim copies of protected text used as training material, sometimes producing exact or nearly exact copies that are thousands of words long if not more, could be attributed to the fact that these AI systems retain copies, adaptations, or derivative works, stored within the AI systems in specific numerical formats. The fact is that these numerical representations could often be "worked backwards" to recreate a precise and complete version of the original content used as training material.[22]

The fact that some advanced AI systems may include "output filters" to prevent verbatim copies reproduction of works in response to prompts in fact further demonstrates the point: These filters would not be necessary if there were no copies within the systems:

> [I]t should be noted that the fact that some of the more advanced AI systems may be able to install "output filters" that may prevent outputs where large verbatim copies are generated, is of little consequence. As explained above, copies consisting of numerical representations of the training data are made and kept on the AI system regardless of whether the generation of infringing output is regulated at the point of exit.[23]

As summarized by computer scientists Katherine Lee and A. Feder Cooper, with law professor James Grimmelmann, from a legal and technical perspective, "every stage

20. *Id.* at 11 (footnotes omitted).
21. *Id.* at 4.
22. *Id.* at 11 (footnotes omitted).
23. *Id.* at 12–13 (footnotes omitted).

in the generative AI supply chain requires a potentially-infringing reproduction and thus implicates copyright."[24]

Alas, debates persist.

V. TRAINING MATERIALS ADD PERPETUAL BENEFITS TO LLM OUTCOMES.

Once creative output has been used to train an AI system, that system forever benefits.

As former General Counsel of the Copyright Office, Jacqueline Charlesworth, states in her recent article, *Generative AI's Illusory Case for Fair Use*:

> The fair use case for generative AI rests in part on an inaccurate portrayal of the functioning of AI systems. Contrary to the suggestion that the works on which AI systems are trained are set aside after the training process, in fact they have been algorithmically incorporated into and continue to be exploited by the model. AI copying is thus fundamentally different from the copying at issue in the technology-driven fair use precedents relied upon by AI entities. Unlike in these earlier cases—where the copying served functional ends independent of the expressive content of the works—generative AI companies exploit the expressive content of the works they appropriate for its intrinsic value. This exploitation is not confined to the collection of training materials or the training process, but is ongoing and the *sine qua non* of the resulting AI system.[25]

VI. THE USE OF COPYRIGHTED MATERIAL IN THE TRAINING OF LLMS AND IN AI-SYSTEMS SHOULD BE—AND IS—LICENSED: DIRECT AND COLLECTIVE LICENSING

Copying requires licenses. Licensing meets market needs. Unlike the blunt instrument of regulation, it involves parties asking questions such as: "What do you really want?" and "What are you prepared to give/accept?"

Discussing the importance of, and interplay between, direct and collective licensing, *The Heart of the Matter* states:

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24. Katherine Lee et al., *Talkin' 'Bout AI Generation: Copyright and the Generative-AI Supply Chain*, J. COPYRIGHT SOC'Y (forthcoming 2024) (manuscript at 67); *see also* OpenAI, Comment Letter on the U.S. Patent and Trademark Office's Notice of Inquiry on Intellectual Property Protection for Artificial Intelligence Innovation, at 2, https://www.uspto.gov/sites/default/files/documents/OpenAI_RFC-84-FR-58141.pdf [https://perma.cc/G6R6-2BHM]
[https://web.archive.org/web/20250219214604/https://www.uspto.gov/sites/default/files/documents/OpenAI_RFC-84-FR-58141.pdf] ("Modern AI systems require large amounts of data. For certain tasks, that data is derived from existing publicly accessible "corpora" (singular: "corpus") of data that include copyrighted works. By analyzing large corpora (which necessarily involves first making copies of the data to be analyzed), AI systems can learn . . . .").

25. Jacqueline C. Charlesworth, *Generative AI's Illusory Case for Fair Use*, 27 VAND. J. ENT. & TECH. L. (forthcoming 2025) (manuscript at 4).

> [G]lobal licenses can harmonize how copyright owners and users agree to use copyrighted works, significantly benefiting innovation and progress by setting the stage for consistent and responsible copyright uses that could lead to untold scientific and cultural advancements. Licenses could put an end to much of the uncertainty and to both pending and potential future litigation, putting acceptable boundaries on what can and cannot be done with copyrighted material when training LLMs.
>
> Various licensing models could play a crucial role in this progress. Direct licensing—agreements between a copyright owner and user—is incredibly important because it allows the parties to be flexible in defining terms like payment, timing, and addressing specific, bespoke use cases. Voluntary collective licensing is also likely to play a critical role in solving the licensing puzzle, enabling users to obtain a single license that can cover thousands (or more) of copyrighted works without having to negotiate with each copyright owner individually. This approach is highly beneficial for both copyright owners and users, as it provides an efficient mechanism to grant and obtain permission for using copyrighted works.
>
> Voluntary collective licensing is uniquely equipped to handle some of the more complex issues, when there are large numbers of works and potential users searching for an efficient mechanism to provide and obtain permission for using copyrighted works. One example of how this might be helpful in the AI context is a company engaged in heavy research and development activities that may want to make additional internal uses of a large number of textual works that they have acquired lawfully. The company may not have the bandwidth to engage in additional negotiations, while the publishers of the various scholarly journals would similarly be interested in licensing but would prefer to rely on a more streamlined approach. Importantly, voluntary collective licenses complement direct licenses, providing a framework where copyright owners and users can rely on collective licenses for many typical use cases and direct licenses for unique or individualized situations.
>
> In the case of AI, we believe that both direct and collective licenses can be valuable to reduce uncertainty and establish a viable ecosystem going forward. Some uses, such as certain training activities or general categories of outputs that need access to diffuse copyrighted materials, may be good candidates for collective licensing. Conversely, specific high-value or individual uses based on more defined sets of copyrighted materials could be better suited for direct licensing. Regardless of the approach, licensing provides both parties with compliant access to high-quality works, leading to innovative uses.[26]

VII. CCC AND AI LICENSING

CCC's history, from its founding in 1978,[27] has reduced licensing friction in response to new technologies.

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26. Gervais et al., *supra* note 19, at 27–28 (footnotes omitted).

27. COPYRIGHT CLEARANCE CTR., CREATING SOLUTIONS TOGETHER; LESSONS TO INFORM THE FUTURE OF COLLECTIVE LICENSING 32 (2020), https://www.copyright.com/wp-content/uploads/2021/01/CCC_CreatingSolutionsTogether_Ebook_2020.pdf [https://perma.cc/RR7X-T262] [[https://web.archive.org/web/20250312172318/https://www.copyright.com/wp-content/uploads/2021/01/CCC_CreatingSolutionsTogether_Ebook_2020.pdf].

There was a time when photocopying was deemed disruptive. Congress considered whether changes were required to make photocopies "fair use" under U.S. law.[28] Congress no doubt recognized that photocopying, like AI, is a tool, not a "use" capable of being declared categorically "fair" or "infringing." Thus, in *Basic Books v. Kinko's*, the court did not decide liability on whether a photocopier was used, but on whether the photocopies in question were being used for commercial or non-commercial purposes.[29] The court there looked not just at the ultimate use of the copies—which was for students in the classroom—but also at the defendant's use, which was distinct from that of the students.[30] Kinko's use was deemed commercial and infringing.[31]

CCC offers market-based, global non-exclusive voluntary licenses to support AI in commercial research, schools, and education technology sectors. These licenses were built with rightsholders and users based on agreed understandings of needs and market conditions.

For example, in July 2024 we announced the inclusion of AI rights into our Annual Copyright License ("ACL") for internal use by corporations.[32] The inclusion of AI re-use rights, based largely on demand from our corporate customers, was the first-ever collective licensing solution specifically designed specifically for AI. As of today, these rights cover hundreds of thousands of users globally.

Prior to the addition of specifically denominated "AI rights" in the ACL, we offered other licenses to support specific AI-relevant use cases,[33] including licenses designed for text and data mining,[34] and to allow the creation of machine generated materials for use in classrooms[35] Like the ACL, these rights were added at the request of users who approached CCC with a use case which needed a license. This is how licensing works:

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28. *Id.* at 25.

29. *See* Basic Books, Inc. v. Kinko's Graphics Corp., 758 F. Supp. 1522, 1530 (S.D.N.Y 1991).

30. *Id.* at 1532.

31. *Id.* at 1531.

32. *See CCC Pioneers Collective Licensing Solution for Content Usage in Internal AI* Systems, COPYRIGHT CLEARANCE CTR. (July 16, 2024), https://www.copyright.com/media-press-releases/ccc-pioneers-collective-licensing-solution-for-content-usage-in-internal-ai-systems/ [https://perma.cc/UNQ2-HLAA].

33. *See, e.g.*, *Unlock the Value of Scientific Literature Using Machine-Readable Articles*, COPYRIGHT CLEARANCE CTR., https://www.copyright.com/solutions-rightfind-xml/ [https://perma.cc/MK3R-W32L] [https://web.archive.org/web/20250318123427/https://www.copyright.com/web/20250318123427/https://www.copyright.com/solutions-rightfind-xml/] (last visited Mar. 18, 2025); *Easily Search for, Discover, and Incorporate High-Quality, Copyrighted Content into Curriculum and Instruction*, COPYRIGHT CLEARANCE CTR., https://www.copyright.com/solutions-annual-copyright-license-for-curriculum-instruction/ [https://perma.cc/7B3J-2N3M] [https://web.archive.org/web/20250318123841/https://www.copyright.com/solutions-rightfind-curriculum/] (last visited Mar. 18, 2025). These licenses do not use the phrase "AI," partly because they predate its common usage and partly because they support more specific use cases.

34. *See Unlock the Value of Scientific Literature Using Machine-Readable Articles*, COPYRIGHT CLEARANCE CTR., https://www.copyright.com/solutions-rightfind-xml/ [https://perma.cc/B9PK-73ST] [https://web.archive.org/web/20250219222119/https://www.copyright.com/solutions-rightfind-xml/] (last visited Jan. 24, 2025).

35. *See Annual Copyright License for Curriculum & Instruction*, COPYRIGHT CLEARANCE CTR., https://www.copyright.com/solutions-annual-copyright-license-for-curriculum-instruction/ [https://perma.cc/62VX-N4NH] (last visited Jan. 24, 2025).

A willing buyer seeks a willing seller. Many AI developers skipped this step, preemptively declaring "licensing is not possible."[36]" That is not correct.

In addition to collective licenses, rights owners are licensing content for use in AI systems transactionally on a global basis. New transactional AI deals are regularly announced,[37] and many more deals are closed and kept confidential. CCC is involved in this market too.

VIII. OPEN LICENSING AND AI

In addition to traditional transactions and collective licensing models, AI use is also licensed under so called "open models" such as those offered by Creative Commons ("CC"),[38] and GNU licenses.[39] For example, science publishing uses a variety of "open access" business models.[40] These models are based, in part, on open licensing:

> We encourage the use of CC licenses, not only because they are very well established legal tools, but because they have the benefits of simplicity, machine-readability and interoperability. Importantly, many elements of internet infrastructure 'understand'

36. *See, e.g.*, Microsoft, Reply Comment Letter on the U.S. Copyright Office's Notice of Inquiry on Artificial Intelligence and Copyright, at 9 (Oct. 30, 2023), https://www.regulations.gov/comment/COLC-2023-0006-8750 [https://perma.cc/C3QW-RDFE] [https://web.archive.org/web/20250313201720/https://www.regulations.gov/comment/COLC-2023-0006-8750] ("Any requirement to obtain consent for accessible works to be used for training would chill AI innovation. It is not feasible to achieve the scale of data necessary to develop responsible AI models even when the identity of a work and its owner is known.")

37. *See Generative AI Licensing Agreement Tracker*, ITHAKA S+R, https://sr.ithaka.org/our-work/generative-ai-licensing-agreement-tracker/ [https://perma.cc/T3DH-76A3] [https://web.archive.org/web/20250124164347/https://sr.ithaka.org/our-work/generative-ai-licensing-agreement-tracker/] (last visited Jan. 24, 2025); Paul Sweeting, *Generative AI & Licensing, A Special Report*, VARIETY (Oct. 1, 2024), https://variety.com/vip-special-reports/generative-ai-content-licensing-special-report-1236157051/ [https://perma.cc/BX5D-4ABV] ("Alongside the rapid rise of generative AI, a new licensing market has begun to emerge for AI training data. Since mid-2023, AI companies have been pursuing licensing deals with media rights holders to secure access to their content and use it as high-quality data to train powerful AI models of any modality, notably including text, image, music and video. To date, more than two dozen content owner deals with AI developers have been publicly confirmed, according to VIP+ research. A diverse range of publisher types are now engaged in licensing, with dealmaking rampant among news publishers, stock image companies and platforms such as Reddit and Stack Overflow.").

38. *See Homepage*, CREATIVE COMMONS, https://creativecommons.org/ [https://perma.cc/5U4E-RV9X] [https://web.archive.org/web/20250124120047/https://creativecommons.org/] (last visited Jan. 24, 2025).

39. *See Licenses*, GNU OPERATING SYS., https://www.gnu.org/licenses/licenses.en.html [https://perma.cc/FF4T-D255] [https://web.archive.org/web/20250124171254/https://www.gnu.org/licenses/licenses.en.html] (last visited Jan. 24, 2025).

40. *See 2023 OA Progress Report*, INT'L ASS'N SCI., TECH. & MED. PUBLISHERS (2023), https://s3.eu-west-2.amazonaws.com/stm.offloadmedia/wp-content/uploads/2024/08/10032807/2023OAProgressReportFINAL-2-1.pdf [https://perma.cc/2S3A-H8KZ] [https://web.archive.org/web/20250124172023/https://s3.eu-west-2.amazonaws.com/stm.offloadmedia/wp-content/uploads/2024/08/10032807/2023OAProgressReportFINAL-2-1.pdf].

> CC licensing, and can display and filter content appropriately, based on this machine-readable license information . . . .[41]

Use of open licenses in AI must, of course, comply with the relevant license terms.[42]

IX. CONCLUSION

In the esoteric field of copyright, people tend to gravitate to rhetorical clashes between past and present, between man and machine. The reality is infinitely more boring and quotidian. Reality reduces to the straightforward issue of licensing, and here, we do not need to reinvent the wheel. We should reject claims of unprecedented complexity and remain focused on reality. Copyright—while it may provide authors with the right to prevent uses—is largely about the facilitation of licensing. Rather than imagining ourselves caught in an existential battle over the future, we should review how the past informs where we go from here. Bluntly, licensing has solved seemingly complex reuse challenges in the past, enables AI, and is fit-for-purpose for the future.

Let us eschew drama and reject specious advocacy that somehow "this time is truly different" and we need to support "innovators" by suspending consent of creators -- who are innovators themselves. Such claims tend to be made with every technological development, and they universally oversimplify narratives in favor of one stakeholder group—a particularly wealthy stakeholder group which has chosen to free ride on others. We can, and have always, made technological progress while respecting the rights of creators. We do not need to reinvent law or our approach to licensing. The challenge is not unprecedented, and we must avoid taking unprecedented and dangerous steps. Every day, responsible AI companies and willing rightsholders are demonstrating that we can build AI models through voluntary licensing—licensing that can be adapted as we learn more about the implications of generative AI on other uses of copyright works. So let us follow the path of reason. We can sustain technological innovation while protecting authors and other creators. The answer, as always, comes back to one thing…licensing.

To quote the U.S. Supreme Court in *Andy Warhol Foundation v. Goldsmith*:

> It will not impoverish our world to require [defendant] to pay [artist] a fraction of the proceeds from its reuse of her copyrighted work. Recall, payments like these are incentives for artists to create original works in the first place. Nor will the Court's decision, which is consistent with longstanding principles of fair use, snuff out the

41. *FAQs*, OPEN ACCESS SCHOLARLY PUBL'G ASS'N, https://www.oaspa.org/about/faqs/ [https://perma.cc/6QJ9-LGZJ] [https://web.archive.org/web/20250124172551/https://www.oaspa.org/about/faqs/] (last visited Jan. 24, 2025).

42. *See* Roy Kaufman, *GitHub Is Sued, and We May Learn Something About Creative Commons Licensing*, SCHOLARLY KITCHEN (Jan. 5, 2023), https://scholarlykitchen.sspnet.org/2023/01/05/github-is-sued-and-we-may-learn-something-about-creative-commons-licensing/ [https://perma.cc/JRX5-4CZ9] [https://web.archive.org/web/20250124173016/https://scholarlykitchen.sspnet.org/2023/01/05/github-is-sued-and-we-may-learn-something-about-creative-commons-licensing/].

> light of Western civilization, returning us to the Dark Ages of a world without Titian, Shakespeare, or Richard Rodgers.[43]

Copyright exists to reward creativity and encourage the creation of new materials. Or, as stated in Article I, Section 8, Clause 8 of the U.S. Constitution, "To promote the Progress of Science and useful Arts."[44] It has done so for centuries. Let's support AI by supporting copyright, not by destroying it.

43. Andy Warhol Found. Visual Arts v. Goldsmith, 549 U.S. 508, 549 (2023). For a discussion of the implications of *Warhol* for AI-related copyright cases, see Roy Kaufman, *The Supreme Court Case of* Andy Warhol Foundation v. Goldsmith*: What, if Anything, Does It Mean To Artificial Intelligence?*, SCHOLARLY KITCHEN (June 6, 2023), https://scholarlykitchen.sspnet.org/2023/06/06/the-supreme-court-case-of-andy-warhol-foundation-v-goldsmith-what-if-anything-does-it-mean-to-artificial-intelligence/ [https://perma.cc/H7Q2-RTGS] [https://web.archive.org/web/20250124175244/https://scholarlykitchen.sspnet.org/2023/06/06/the-supreme-court-case-of-andy-warhol-foundation-v-goldsmith-what-if-anything-does-it-mean-to-artificial-intelligence/].

44. U.S. CONST. art. I, § 8, cl. 8.

Pro-Copyright, Pro-AI: The Power of Collective Licensing

Anita Huss-Ekerhult[*] and *Antonios Baris*[**]

INTRODUCTION

The transformative power of artificial intelligence ("AI") is reshaping creative and technological landscapes, challenging the core principles of copyright law, and raising critical questions about access, ownership, and compensation. At the forefront of this evolution is the reliance of AI systems on vast datasets—comprising, *inter alia*, copyrighted works—that serve as the foundation for model training and innovation. This dependency has sparked a pivotal debate: How can we enable the development of AI while safeguarding the rights and investments of creators? Emerging as a crucial solution is the concept of AI-specific licensing, a framework that facilitates legal access to these works, ensuring that innovation is neither stifled nor achieved at the expense of those who fuel it. This nascent market not only holds the potential to redefine how AI systems interact with creative content but also to establish ethical and sustainable standards for the future of technological progress.

Copyright law, whether justified from a utilitarian perspective or a purely economic standpoint, fundamentally aims to stimulate the creation of creative works by providing economic incentives. This rests on the understanding that a thriving body of creative works enriches society and that, without adequate safeguards, the cost of reproducing such works in the digital age often falls to nearly nothing, eroding their economic value. The absence of profitability could discourage creators from producing new works, leading to a significant decline in creative output and societal benefits. Copyright addresses this challenge by counteracting the non-excludability of creative works, enabling their financial exploitation for a defined period, which motivates continued production and innovation.[1] However, this logic has not gone unchallenged,

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1. Robert M. Hurt and Robert M. Schuchman, *The Economic Rationale of Copyright*, 56 AM. ECON. REV. 421, 426 (1966); Arnold Plant, *The Economic Aspects of Copyright in Books*, 1 ECONOMICA, 167, 169–75 (1934).

particularly in the face of the disruptions brought by the transformative technologies of each era.[2]

The evolution of new technologies has progressively expanded the contexts in which the individual exercise of rights has become either unfeasible or highly impractical. This issue has been particularly pronounced with the advent of online digital technologies, where individual rights holders increasingly face challenges in controlling the use of their works, engaging in negotiations with users, and securing appropriate remuneration. In response to these difficulties, some critics have advocated for the reduction of exclusive rights to mere remuneration rights or, in extreme cases, their abolition.[3] However, given that copyright and related rights function as essential incentives for creativity and as recognition of the intellectual and financial investments underpinning creative works, such proposals fail to adequately address the broader purposes of these rights. A more constructive approach lies in the development of mechanisms that adapt rights management to contemporary technological and economic realities. Collective management organizations ("CMOs"),[4] provide an effective solution by enabling rights holders to delegate key functions, including the monitoring of works, licensing negotiations, remuneration collection, and equitable distribution, thereby preserving the ability of rights holders to benefit from their works within a collective framework.[5]

At this stage, it is important to clarify that CMOs operating in the text and image sector—commonly referred to as the publishing sector—are known as Reproduction Rights Organisations ("RROs").[6] RROs manage rights on behalf of authors and

2. Marcella Favale, *Death and Resurrection of Copyright Between Law and Technology*, 23 INFO. & COMMC'N. TECH. L. 117, 125 (2014); Mitchell Longan, *A System Out of Balance: A Critical Analysis of Philosophical Justifications for Copyright Law Through the Lenz of Users' Rights*, 56 U. MICH. J.L. REFORM 779, 794–95 (2023).

3. Martin Kretschmer predicts a radical shift in copyright law, foreseeing a brief exclusivity period followed by a lifetime remuneration right, with criminal law limited to deceptive commercial exploitation. *See* Martin Kretschmer, *Digital Copyright: The End of an Era*, 25 EUR. INTELL. PROP. REV. 333 (2003). *See also* Joost Smiers, *The Abolition of Copyrights: Better for Artists, Third World Countries and the Public Domain*, 4 EUR. J. ARTS EDUC. 66 (2002).

4. The term "collective management organizations" traditionally implies "that actual collectives of authors, performers and owners of rights administer the rights concerned through appropriate bodies and administrative units established by them. In the case of such collective management, usually blanket licenses are granted to users, uniform tariffs and distribution rules are established, and deductions are made from the remuneration collected not only for administration costs but also for cultural and social purposes. The term is also frequently used, however, to cover all joint forms of exercising rights where licenses are available from a single source (rather than being granted on an individual basis)." *See* MIHÁLY FICSOR, GUIDE TO THE COPYRIGHT AND RELATED RIGHTS TREATIES ADMINISTERED BY WIPO AND GLOSSARY OF COPYRIGHT AND RELATED RIGHTS TERMS 275 (2003).

5. MIHÁLY FICSOR, COLLECTIVE MANAGEMENT OF COPYRIGHT AND RELATED RIGHTS 13–14 (3d ed. 2022).

6. The majority of RROs are members of IFRRO, which, as of the date of writing, includes over 160 members from around 90 countries across all continents. Collectively, IFRRO members represent millions of authors and publishers in the publishing sector. For more information, see *What is IFFRO*, IFFRO, https://ifrro.org/page/what-is-ifrro/ [https://perma.cc/DD2C-52TA] [https://web.archive.org/web/20250124191731/https://ifrro.org/page/what-is-ifrro/] (last visited Jan. 24, 2025).

publishers of text- and image-based works, particularly in cases where rights holders either choose not to manage these rights themselves or where doing so is impractical or impossible. [7] Their licensing and related activities predominantly focus on authorizing the reproduction of already legally published works, thereby addressing the secondary market.[8]

The market for text- and image-based works is divided into three segments: the primary market, the secondary market, and exceptions and limitations to exclusive rights granted to rightsholders.[9] The primary market typically involves direct sales, whereas the secondary market encompasses uses such as the production of multiple photocopies of a book chapter for educational purposes—activities which are typically managed by RROs.[10]

RROs are usually established and governed jointly by authors and publishers, a group that includes writers of various genres, photographers, illustrators, visual artists, composers, lyricists, and publishers of books, journals, newspapers, sheet music, and other works in print or comparable digital formats.[11] These organizations grant licenses for specific uses, such as copying portions of published works, under terms acceptable to the authors and publishers.[12] Licenses generally cover reproduction by methods such as photocopying, printing, faxing, scanning, and certain forms of digital use by students, educators, researchers, or employees within institutions or companies.[13]

In light of the above, CMOs and RROs emerge as vital intermediaries within the copyright ecosystem, balancing the protection of rights holders' interests with the facilitation of lawful access to creative works. With the rapid advancement of AI, their role is undergoing significant evolution. As AI increasingly depends on large datasets of text- and image-based works, CMOs and RROs are uniquely positioned to manage rights effectively and equitably, ensuring the copyright framework remains robust. The emergence of AI-specific collective licensing markets underscores the critical importance of their function, reflecting a serious commitment to adapting copyright management to the challenges of the digital age and maintaining fair remuneration and access within an evolving technological landscape.

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7. OLAV STOKKMO, THE ROLE OF COLLECTIVE LICENSING 4 (2019), https://prod.internationalpublishers.org/wp-content/uploads/2019/11/Olav_Stokkmo_-_The_Role_of_Collective_Licensing.pdf [https://perma.cc/Q8MW-EBTF] [https://web.archive.org/web/20250214230808/https://prod.internationalpublishers.org/wp-content/uploads/2019/11/Olav_Stokkmo_-_The_Role_of_Collective_Licensing.pdf].

8. *Id.* at 3.

9. OLAV STOKKMO, COLLECTIVE MANAGEMENT OF RIGHTS IN THE PUBLISHING SECTOR 2, https://ifrro.org/resources/documents/General/Article_Collective_management_of_rights_in_the_publishing_sector_OSTOKKMO.pdf [https://perma.cc/44ZQ-LH6G] [https://web.archive.org/web/20240606144653/https://ifrro.org/resources/documents/General/Article_Collective_management_of_rights_in_the_publishing_sector_OSTOKKMO.pdf] (last visited Feb. 23, 2025).

10. *Id.*

11. *See* IFRRO, COLLECTIVE MANAGEMENT OF COPYRIGHT: HOW REPRODUCTION RIGHTS ORGANISATIONS (RROS) FUNCTION 6 (2006).

12. *Id.* at 62–63.

13. TARJA KOSKINEN-OLSSON, COLLECTIVE MANAGEMENT OF TEXT AND IMAGE-BASED WORKS 16, 32 (2023).

The aim of this Article is to showcase the emerging AI licensing solutions pioneered by RROs and to explore how these frameworks address the challenges posed by AI's reliance on copyrighted works. The discussion begins with a primer on the structure and operation of collective management frameworks, highlighting their effectiveness in managing rights for secondary uses. Following this, the Article examines the necessity of licensing in the AI context, emphasizing why exceptions and limitations under current copyright regimes are insufficient to adequately address the complexities of AI training. This section underscores the limitations of existing legal frameworks and the potential harm to rightsholders if AI systems continue to use copyrighted works without appropriate permissions or compensation. Finally, the Article presents an analysis of the emerging licensing solutions tailored to AI, illustrating how these initiatives by RROs are not only meeting the demands of the AI market but are also paving the way for sustainable and equitable practices at the intersection of copyright and technology.

I. RROS AND COLLECTIVE MANAGEMENT OF RIGHTS

RROs began their operation in the 1970s and 1980s, in response to requests from educational institutions to copy legally from published works when the whole book, journal, etc. was not needed. The first licensing agreement on reprography was signed in Sweden, in 1973, by the RRO Bonus Copyright Access and the Ministry of Education for reprographic copying in schools, universities, colleges, and other education institutions.[14] This was quickly followed by Copyright Agency ("CA") in Australia,[15] and Copyright Clearance Center ("CCC") in the USA,[16] organizations set up specifically to handle collective management of text and image-based works.[17] In several other countries, RRO activities were added to the tasks of already established CMOs, e.g., VG Wort (Germany), Literar-Mechana (Austria), and ProLitteris (Switzerland). [18] Similarly, in Africa, multi-repertoire CMOs added the collective management of reprography to their activities, such as COSOMA (Malawi) and BBDA (Burkina Faso).[19]

14. STOKKMO, *supra* note 9, at 1; *see also Vår Historia*, BONUS, https://www.bonuscopyright.se/om-bonus/var-historia/ [https://perma.cc/JT75-3P7P] [https://web.archive.org/web/20250327121017/https://www.bonuscopyright.se/om-bonus/var-historia/] (last visited Feb. 23, 2025).

15. STOKKMO, *supra* note 9, at 1; *see also Our Heritage*, COPYRIGHT AGENCY, https://www.copyright.com.au/about-us/our-heritage/ [https://perma.cc/54PV-JYFZ] [https://web.archive.org/web/20250327121157/https://www.copyright.com.au/about-us/our-heritage/] (last visited Feb. 22, 2025).

16. STOKKMO, *supra* note 9, at 1; *see also* Robert Harington, *Copyright in a Digital Era: The Rise and Rise of CCC*, SCHOLARLY KITCHEN (Nov. 22, 2013), https://scholarlykitchen.sspnet.org/2013/11/22/copyright-in-a-digital-era-the-rise-and-rise-of-ccc/ [https://perma.cc/MJJ6-MNLK] [https://web.archive.org/web/20250327121105/https://scholarlykitchen.sspnet.org/2013/11/22/copyright-in-a-digital-era-the-rise-and-rise-of-ccc/].

17. STOKKMO, *supra* note 9, at 1.

18. *Id.*

19. *Id.*

In some countries, multiple RROs operate to manage different rights or serve distinct linguistic and regional communities. For example, in Canada, Access Copyright serves as the RRO for English-language works,[20] while Copibec operates in Québec, managing rights for French-language works.[21] Similarly, Germany has three RROs with sector-specific mandates: VG Wort oversees text-based works,[22] VG Bild-Kunst manages rights in visual arts,[23] and VG Musikedition handles printed music.[24]

Educational institutions are by far the heaviest user of copies of excerpts from copyright published works. Practical solutions are required to enable education providers to legally copy chapters, single articles, and other extracts from published works, and educational institutions continue to be the main beneficiaries of RRO services.[25] However, many RROs also offer licensing solutions beyond the education sector, including for government bodies, private and public corporations and administrations, libraries, bands and choirs, media monitoring companies, and, in many countries, copy shops.[26]

The foundation of international copyright law is the Berne Convention for the Protection of Literary and Artistic Works ("Berne Convention"), and the right of reproduction, which states that the author of a literary or artistic work has the exclusive right to authorize or prohibit the reproduction of their work "in any manner or form."[27] In the digital environment, the right of communication to the public, including making available to the public, encompasses the right to authorize any communication to the public, by wire or wireless means, including "the making available to the public of works in a way that the members of the public may access the work from a place and at a time individually chosen by them." [28] This covers, in particular, on-demand, interactive communication through the Internet, including via databases offered to

20. *Id.*; *see also About*, ACCESS COPYRIGHT, https://www.accesscopyright.ca/about-us/ [https://perma.cc/8FSD-YEAX] [https://web.archive.org/web/20250313234050/https://www.accesscopyright.ca/about-us/] (last visited Feb. 22, 2025).

21. STOKKMO, *supra* note 9, at 1; *see also About*, COPIBEC, https://www.copibec.ca/fr/mission [https://web.archive.org/web/20250327121320/https://www.copibec.ca/fr/mission] (last visited Feb. 22, 2025).

22. STOKKMO, *supra* note 9, at 1; *Wahrnehmungsvertrag*, VG WORT, https://www.vgwort.de/dokumente/wahrnehmungsvertrag.html [] (last visited Feb. 22, 2025).

23. STOKKMO, *supra* note 9, at 1; *see also Über Uns*, BILD KUNST, https://www.bildkunst.de/ueber_uns/ [https://perma.cc/AMQ8-VV9V] [https://perma.cc/PC4A-99WC] (last visited Feb. 22, 2025).

24. STOKKMO, *supra* note 9, at 1; *see also* VG MUSIKEDITION, ABOUT US, https://vg-musikedition.de/uploads/vg_about_us_6326e5c859.pdf [https://perma.cc/PC4A-99WC] [https://web.archive.org/web/20241008235341/https://vg-musikedition.de/uploads/vg_about_us_6326e5c859.pdf] (last visited Feb. 22, 2025).

25. STOKKMO, *supra* note 9, at 2.

26. *Id.* For an overview of the individual RRO licensing, see *Membership List*, IFFRO, https://ifrro.org/page/membership-list/ [https://perma.cc/N8DZ-A49C] (last visited Jan. 24, 2025).

27. Berne Convention for the Protection of Literary and Artistic Works art. 9, Sept. 9, 1886, *as revised* July 24, 1971 *and as amended* Sept. 28, 1979, S. TREATY DOC. NO. 99-27 (1986) [hereinafter, Berne Convention].

28. WIPO Copyright Treaty (WCT) art. 8, Dec. 20, 1996, 2186 U.N.T.S. 121.

registered students by the use of passwords, and where students can retrieve the materials irrespective of their location.

Building on this framework, the reproduction of works can take various forms, including printing, copying on paper or analogue copying, scanning, digital copying, and electronic storage in databases. Although rights holders maintain their exclusive rights, these rights may be subject to exceptions or limitations in line with the three-step test as enshrined in the international legal framework.[29] As a result, large-scale analogue and digital copying typically require licensing, and while certain countries have introduced exceptions or limitations for the use of text and image-based works in libraries, educational, or research settings, adherence to the three-step test remains essential.[30]

Common law jurisdictions often rely on "fair use" or "fair dealing" provisions, whereas civil law-based legislations typically emphasize "private use." The principle of "fair use," as implemented in legislations like that of the United States, provides certain limitations on the exclusive rights of copyright holders.[31] The concept of "fair dealing," as exemplified in Section 29 of the U.K. Copyright, Designs, and Patents Act, allows limited reproduction for purposes such as research or private study, provided it is for non-commercial purposes.[32] In jurisdictions such as the U.K., Jamaica, Kenya, and Hong Kong, the right to use works under exceptions may not apply if a suitable licensing agreement is available (a so-called "license override").[33] Educational institutions, for example, are obligated to negotiate a license agreement with the respective RRO if they are aware of an applicable license.

Many jurisdictions also provide for "private copying," which allows reproduction for personal use under exceptions or limitations to the exclusive reproduction right. However, this is typically subject to fair compensation for rights holders to account for revenue loss or harm. This remuneration, which does not replace licensing, has become an important and stable source of income for authors and rights holders worldwide, contributing to enhanced creativity.[34]

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29. Berne Convention, *supra* note 27, art. 9(2). For more details, see *supra* section II.

30. For a more detailed discussion, see Robert J. Congleton & Sharon Q. Yang, *A Comparative Study of Education Exemptions to Copyright in the United States and Europe*, 3 ATHENS J.L. 47 (2016).

31. Fair use is determined by a balanced application of four factors outlined in Section 107 of the U.S. Copyright Act, as interpreted by case law. These factors include: (1) the purpose and character of the use; (2) the nature of the copyrighted work; (3) the amount or substantiality of the portion used; and (4) the effect of the use on the market value of the original work. No single factor is decisive; instead, courts weigh them collectively, considering the specific circumstances of each case. *See* 17 U.S.C. § 107; Campbell v. Acuff-Rose Music, Inc., 510 U.S. 569, 569 (1994) ("Section 107, which provides that 'the fair use of a copyrighted work . . . for purposes such as criticism [or] comment . . . is not an infringement . . . ,' continues the common-law tradition of fair use adjudication and requires case-by-case analysis . . . .").

32. Copyright, Designs & Patents Act 1988, c. 48, § 29 (U.K.).

33. STOKKMO, *supra* note 9, at 2; *see* Copyright, Designs & Patents Act 1988, c. 48, § 29 (U.K.); Copyright Act, §§ 52–55 (Jam.); Copyright Act, No. 12 of 2001 (Rev. 2017), § 26(1)(a) (Kenya); Copyright Ordinance, (2019) Cap. 528, §§ 38–41A (H.K.).

34. *See* IFFRO, INTERNATIONAL SURVEY ON TEXT AND IMAGE COPYRIGHT LEVIES (2016); STICHTING DE THUISKOPIE, INTERNATIONAL SURVEY ON PRIVATE COPYING: LAW AND PRACTICE 2016 (2017).

To facilitate private copying remuneration, some countries have adopted systems of obligatory collective management for its collection and distribution. The list of equipment and media included in private copying schemes varies among countries. Some jurisdictions have expanded their schemes to include "storage media of any kind" to address technological advancements. Additionally, new technologies such as cloud services have been incorporated into private copying frameworks in certain countries, reflecting the rapidly changing digital landscape.

It is important to highlight that these operational models exist and have developed historically around the world, regardless of the development of AI. Also, no new operational models have been created for the management of AI-related uses.

A. COLLECTIVE MANAGEMENT OPERATIONAL MODELS

Generally speaking, the operational model of an RRO is shaped by legislation and can include various approaches, such as obligatory collective management, presumption-based collective management, voluntary collective management, and extended collective licensing. Regardless of the model, certain foundational principles must be maintained: ensuring equitable remuneration for authors and publishers and facilitating legal access to works in an evolving technological environment. It is not uncommon for RROs to operate using multiple models, depending on the usage area and legislative framework.[35]

1. Voluntary Collective Licensing

Under voluntary collective licensing, the RRO issues licenses to copy material on behalf of those rights holders who have given it a mandate to act on their behalf, as well as through agreements concluded with RROs in other countries.[36] Mandates from rights holders can be exclusive or non-exclusive. For instance, in the United States, CCC offers non-exclusive agreements with rights holders only and rights holders can sometimes even set individually the price of each work;[37] similarly, this is the case in South Africa and Zambia.[38] In certain countries, such as Argentina, there is no exception to the right of reproduction, which means that any copying from a copyright work requires authorization.[39]

35. *See* IFRRO, MEMBERS DIRECTORY (2024), . https://ifrro.org/resources/documents/publications/public/ifrro-directory-2024.pdf [https://perma.cc/5S9G-VC2R] [https://web.archive.org/web/20240828121354/https://ifrro.org/resources/documents/publications/public/ifrro-directory-2024.pdf].

36. *See* STOKKMO, *supra* note 9, at 3; FICSOR, *supra* note 5, at 26.

37. FICSOR, *supra* note 5, at 26.

38. STOKKMO, *supra* note 9, at 3.

39. *See* Law No. 11723, Sept. 30, 1933 (Arg.), https://www.wipo.int/wipolex/en/legislation/details/21169 [https://perma.cc/V85G-KDLX]; Law No. 25446, art. 23 (Arg.), https://www.uaipit.com/uploads/legislacion/files/0000006364_Ley_25446_Ley_de_fomento_del%20libro

Even in the case of voluntary licensing, copyright legislation can include stipulations that govern the operations of the RRO.[40] In the United Kingdom, licensing bodies such as the Copyright Licensing Agency ("CLA") are subject to the jurisdiction of the copyright tribunal, while an educational licensing scheme with CLA is underpinned by a copyright exception, i.e., where a particular work is not included in a license, an educational establishment would still be able to copy it in the defined case of the exception.[41] This is also the case in Botswana, Eswatini, Ghana, Kenya, Mauritius, Nigeria and Zanzibar, and in Asian (Hong Kong), Caribbean (Barbados, Jamaica, Trinidad & Tobago) and European (Ireland, in addition to the U.K.) countries.[42]

2. Extended Collective License

The laws of some countries, initially in the Nordic countries, extend licensing agreements negotiated voluntarily on the basis of rightsholder mandates to also cover works of non-mandating rights holders.[43] In this Extended Collective Licensing ("ECL") system, the law extends the effects of a copyright license to also cover the works of non-represented rights holders.[44] The CMO issuing such a license must distribute the remuneration to represented and non-represented rights holders on an equal basis.[45] It is a prerequisite that the RRO represents a substantial number of rights holders whose works are used under the specific licensing agreement; the system is best suited to countries where rights holders are well organized and represented. Non-represented rights holders have in most cases the right to prohibit the use of their work (opt-out),[46] and the CMO has the obligation to inform users of such cases.[47] Apart from the Nordic countries, among others the Czech Republic, Hungary, Romania, and

_es_2001_06_27.pdf [https://perma.cc/5PX6-GHBQ] [https://web.archive.org/web/20250430172528/https://www.uaipit.com/uploads/legislacion/files/00000 06364_Ley_25446_Ley_de_fomento_del%20libro_es_2001_06_27.pdf].

40. STOKKMO, *supra* note 9, at 3.

41. *Do You Need a Licence?*, CLA, https://cla.co.uk/cla-products/do-you-need-a-licence/ [https://perma.cc/W88S-MX39] [https://web.archive.org/web/20250430175538/https://cla.co.uk/cla-products/do-you-need-a-licence/] (last visited Apr. 30, 2025).

42. STOKKMO, *supra* note 9, at 3.

43. *Id.*; FICSOR, *supra* note 5, at 27.

44. FICSOR, *supra* note 5, at 27.

45. IFRRO, A QUICK GUIDE TO DISTRIBUTION OF COPYRIGHT REVENUE IN THE TEXT AND IMAGE BASED SECTOR 6 (2011), https://ifrro.org/resources/documents/booklets/public/f-distributionquick_guide2012_final(1).pdf [https://perma.cc/DB36-4RM4] [https://web.archive.org/web/20250430175038/https://ifrro.org/page/article-detail/ifrro-publishes-guide-to-distribution-of-copyright-revenue-1961/].

46. FICSOR, *supra* note 5, at 27.

47. IFRRO, *supra* note 11, at 27.

Slovenia have introduced some form of ECL into their national legislation.[48] A further example of the ECL system comes from Malawi.[49]

3. Legal Presumption of Representation

Under this mechanism, a representative RRO is presumed to represent the interests and rights of both member and non-member rights holders; this is the case, for instance, in Germany, where VG Wort, the RRO managing out-of-commerce works is presumed to represent non-member rights holders under certain conditions.[50]

4. Obligatory Collective Management

Reprographic reproduction may also be made subject to obligatory collective management, such as in Senegal and France.[51] The obligatory collective management model is also called mandatory or compulsory collective management. In the case of obligatory collective management, rights holders cannot make claims on an individual basis.[52] In France, rights holders are legally obliged to make claims only through a CMO approved by the Ministry of Culture.[53] CFC is the RRO appointed by the French Ministry of Culture to manage reprographic reproduction rights.[54] By virtue of the law, it represents all French and foreign works.[55] While the obligatory collective management only applies to photocopying, CFC can license digital copying under a voluntary mechanism and extended collective management for digital uses in education.[56] This type of management has been adopted in a number of countries for

48. WIPO, COLLECTIVE MANAGEMENT OF TEXT AND IMAGE-BASED WORKS 35–36 (2023), https://www.wipo.int/edocs/pubdocs/en/wipo-pub-924-2023-en-collective-management-of-text-and-image-based-works.pdf [https://perma.cc/UTB4-V3PR] [https://web.archive.org/web/20240927055844/https://www.wipo.int/edocs/pubdocs/en/wipo-pub-924-2023-en-collective-management-of-text-and-image-based-works.pdf].

49. STOKKMO, *supra* note 9, at 3.

50. IFRRO, LICENSING OF OUT-OF-COMMERCE WORKS: AN IFRRO GUIDE 44, https://ifrro.org/resources/documents/general/ifrro%20guide-licensing%20of%20oocw_final.pdf [https://perma.cc/8NQN-GLZP] [https://web.archive.org/web/20240712165141/https://ifrro.org/resources/documents/general/IFRRO%20Guide-licensing%20of%20OOCW_final.pdf].

51. STOKKMO, *supra* note 9, at 3.

52. FICSOR, *supra* note 5, at 27.

53. *Id.*

54. *Id.*

55. *Id.* at 28.

56. *See* CFC, https://www.cfcopies.com/ [https://perma.cc/EQ4G-53Y3] [https://web.archive.org/web/20250430183754/https://www.cfcopies.com/] (last visited Apr. 30, 2025); IFRRO, DIGITAL BUSINESS MODELS 8 (2010), https://ifrro.org/resources/documents/booklets/public/g-ifrro_brochure_web(2).pdf [https://web.archive.org/web/20220519162639/https://ifrro.org/resources/documents/booklets/public/g-ifrro_brochure_web(2).pdf].

reproduction for private and personal purposes, including Lithuania, Poland, and Romania.[57]

5. Legal Licenses

Under a legal license regime, the license to copy is given by law.[58] Rights holders have a right to remuneration, which is collected by an RRO;[59] thus, a legal license constitutes a remuneration right, instead of an exclusive right. Under a statutory license, the royalty rate to be paid is also determined by statute.[60] If rights holders can negotiate the royalty rate with users, the term compulsory license is used in some jurisdictions. In Australia, education licenses and government copying schemes are managed by Copyright Agency as the RRO, based on a scheme where parties can negotiate the license fees.[61] For other sectors, such as businesses, voluntary licenses are offered. Similar provisions are in place in Singapore, and many Francophone countries in Africa, such as Burkina Faso and Côte d'Ivoire.[62]

In Switzerland, a legal license covers schools, public administration, libraries, copy shops, services, trade, and industry.[63] Tariffs are not fixed by statute, but negotiated between the national RRO, ProLitteris, and users' associations, and are subject to ratification by the Federal Arbitration Commission.[64] In Japan, the Society for the Administration of Remuneration for Public Transmission for School Lessons ("SARTRAS") operates under a statutory license for specific public transmissions of all types of copyright works, including books, magazines, music, arts, photographs, broadcasting programs, etc., of both domestic and international origin.[65]

B. PRIVATE COPYING AND REPROGRAPHY LEVY FOR TEXT AND IMAGE-BASED WORKS

In a private copying remuneration system, also called a levy system, a copyright fee is added to or incorporated into the price of copying equipment and media, which can be used to reproduce copyright protected works. The collection is usually taken care of by a CMO. The model was first developed for reprography in Germany in the 1980s and has since been implemented in many countries in and outside Europe, for instance in Algeria, Burkina Faso, Côte d'Ivoire, Ghana, and Malawi.[66]

57. WIPO, *supra* note 48, at 37.
58. FICSOR, *supra* note 5, at 28.
59. *Id.*
60. *Id.*
61. *Id.*
62. IFRRO, *supra* note 11, at 43 (Singapore); WIPO, *supra* note 48, at 40 (Burkina Faso and Côte d'Ivoire).
63. FICSOR, *supra* note 5, at 28.
64. *Id.*
65. For more information about SARTRAS, see https://sartras.or.jp/ [https://perma.cc/NE2E-MDXU] [https://web.archive.org/web/20250430185159/https://sartras.or.jp/].
66. STOKKMO, *supra* note 7, at 13.

In the text and image sector, the system often includes two types of levies, sometimes supplemented by an operator fee. The first type is the private copying levy, where a fee is collected for equipment and media that can be used to copy various types of protected works, such as PCs, smartphones, and tablets.[67] Examples of countries implementing this system include France, the Netherlands, and Ghana.[68] The second type is a combination of the private copying levy and a reprography levy.[69] This system includes a private copying levy alongside a separate reprography levy, which applies to equipment specifically designed to reproduce text and image-based works, such as multifunctional copying machines, scanners, and printers.[70] This approach is seen in countries like Burkina Faso and Germany.[71] Unlike the private copying levy, the reprography levy is generally not limited to private use.

In addition to these levies, an operator fee is often payable by entities such as copy shops, schools, colleges, universities, libraries, government institutions, and research organizations.[72] This fee can be an annual flat fee per device or a fee proportional to the number of copies made. Authors and publishers benefit from three primary sources of income for reprographic and similar reproduction and use of textual and visual works, as managed by RROs.[73] These sources include remuneration collected on reprographic equipment at the point of import or manufacturing, as compensation for personal use (e.g., in Algeria and Morocco[74]), payment for actual use (e.g., in Senegal[75]), and a share of private copy remuneration collected on multimedia equipment and

67. WIPO, INTERNATIONAL SURVEY ON PRIVATE COPYING 10–11 (2016), https://www.wipo.int/edocs/pubdocs/en/wipo_pub_1037_2017.pdf [https://perma.cc/4KNZ-86Y5] [https://web.archive.org/web/20250430185401/https://www.wipo.int/edocs/pubdocs/en/wipo_pub_1037_2017.pdf].

68. For a list of countries which remunerate authors and publishers of published works through a reprography levy system, see IFRRO list of members at https://ifrro.org/page/membership-list/ [https://perma.cc/MHY7-YCZK] [https://web.archive.org/web/20250430185650/https://ifrro.org/page/membership-list/] (last visited Apr. 30, 2025).

69. WIPO-IFRRO, INTERNATIONAL SURVEY ON TEXT AND IMAGE LEVIES 9 (2016), https://www.wipo.int/edocs/pubdocs/en/wipo_pub_1042_2017.pdf [https://perma.cc/39EZ-HTT6] [https://web.archive.org/web/20250430190430/https://www.wipo.int/edocs/pubdocs/en/wipo_pub_1042_2017.pdf].

70. *Id.* at 9.

71. *Id.*

72. *Id.* at 10.

73. *Id.*

74. *Id.* at 43.

75. *See* Sénégalaise des Droits d'Auteurs et des droits Voisins (La SODAV), https://lasodav.sn/web/ [https://perma.cc/UP3K-38X5] [https://web.archive.org/web/20250430191716/https://lasodav.sn/web/] (last visited Apr. 30, 2025); Law No. 2008-09 of Jan. 25, 2008, Droit d'auteur et les droits voisins [Copyright and related rights] art. 36 (Sen.), https://www.droit-afrique.com/upload/doc/senegal/Senegal-Loi-2008-09-droits-auteur.pdf [https://perma.cc/5RFB-CHV8] [https://web.archive.org/web/20250430191403/https://www.droit-afrique.com/upload/doc/senegal/Senegal-Loi-2008-09-droits-auteur.pdf].

devices that can also reproduce or store text- and image-based works, such as USB sticks, PCs, smartphones, and tablets.[76]

In many cases, countries adopt two or all three of these payment sources. For example, in France, Ghana, Malawi, and Côte d'Ivoire, two sources of income apply,[77] while Burkina Faso, Austria, and Germany utilize all three.[78] The methods of payment for reprographic and similar reproduction managed by RROs on behalf of text and image authors and publishers vary across jurisdictions. These methods may include a fee per student or employee, as seen in Botswana,[79] remuneration collected on reprographic equipment such as photocopiers, printers, and scanners (e.g., in Algeria and Morocco[80]), or a lump sum per institution based on the number of students or employees, as practiced in Tanzania.[81]

II. WHY AI NEEDS LICENSING?

Before delving into the collective management framework and the AI licensing solutions developed by RROs in recent months, it is crucial to firstly address the underlying need for such mechanisms.

High-quality AI outputs are contingent on the breadth and depth of the datasets used during training. Text and data mining ("TDM") processes, which are integral to AI development—yet not completely synonymous with AI training—involve the systematic extraction, reproduction, and ingestion of textual and data-based content to enable models to identify patterns, generate predictions, and refine their responses.[82] This dependence on extensive datasets often intersects with the domain of copyright law, as much of the data required for training consists of protected works, including text, images, and database contents. When this content is sourced from copyrighted materials or other legally protected subject matter, the reproduction right becomes a critical legal consideration.

The use of copyright-protected material in the training datasets of large language models ("LLMs") raises significant concerns regarding unauthorized copying. This

76. WIPO, *supra* note 67. For a list of countries with a private copying remuneration system, see INT'L CONFEDERATION SOC'YS AUTHORS & COMPOSERS (CISAC), PRIVATE COPYING GLOBAL STUDY (2020), https://www.cisac.org/services/reports-and-research/private-copying-global-study [https://perma.cc/4MK5-4FV8].

77. IFRRO, OVERVIEW OF MODELS OF OPERATION UNDER NATIONAL EXCEPTIONS AND LIMITATIONS REGARDING EDUCATIONAL ACTIVITIES 19, https://ifrro.org/resources/documents/general/africa.pdf [https://perma.cc/F6D8-EFYN] [https://web.archive.org/web/20250430192351/https://ifrro.org/resources/documents/general/africa.pdf]

78. STOKKMO, *supra* note 9, at 4.

79. *Id.*

80. *Id.*

81. *See* STOKKMO, *supra* note 7, at 13.

82. "'[T]ext and data mining' means any automated analytical technique aimed at analysing text and data in digital form to generate information which includes but is not limited to patterns, trends and correlations[.]" Directive 2019/790, of the European Parliament and of the Council of 17 April 2019 on Copyright and Related Rights in the Digital Single Market and Amending Directives 96/9/EC and 2001/29/EC, art. 2(2), 2019 O.J. (L 130).

occurs at two levels: the creation of temporary copies during the training process and the retention of numerical representations of the training data within the model post-training.[83] Both scenarios may result in copyright liability, owing to the extensive scope of the reproduction right.[84] Additionally, LLMs are capable of retaining elements of the original works included in their training data, potentially preserving and reproducing expressions from these works. As noted by Marmanis, the training of LLMs inherently involves copying that may encapsulate the creative expressions of the original materials.[85] Empirical research supports this observation, revealing that LLMs can memorize portions of their training data and, under specific prompts, reproduce it verbatim or with only minor variations.[86]

Several jurisdictions, including Japan,[87] Singapore,[88] the European Union,[89] and the United Kingdom,[90] have introduced specific TDM exceptions. However, these measures risk undermining the creative ecosystem by allowing the use of protected works without adequate safeguards for rights holders. Importantly, the mere existence of a TDM exception does not grant unrestricted freedom to use entire repertoires of protected content for AI training. When determining whether a national TDM provision applies in a given case, courts must not only assess compliance with the specific conditions of the exception but also ensure adherence to the three-step test.

The three-step test, enshrined in Article 9(2) of the Berne Convention, establishes that exceptions and limitations to copyright are permissible only if they satisfy three cumulative and sequential conditions: (i) they must apply to certain special cases; (ii) they must not conflict with the normal exploitation of the work; and (iii) they must not unreasonably prejudice the legitimate interests of the rightsholder.[91] The text of the test

83. *See* Daniel J. Gervais et al., *The Heart of the Matter: Copyright, AI Training, and LLMs* J. COPYRIGHT SOC'Y (forthcoming) (manuscript at 13).

84. For more details see Eleonora Rosati, *Infringing AI: Liability for AI-Generated Outputs Under International, EU, and UK Copyright Law*, EUR. J. RISK REGULATION 1, 7–8 (2004).

85. Babis Marmanis, *Heart of the Matter: Demystifying Copying in the Training of LLMs*, DATAVERSITY (Feb. 2, 2024), https://www.dataversity.net/heart-of-the-matter-demystifying-copying-in-the-training-of-llms/ [https://perma.cc/G5TB-MTYA] [https://web.archive.org/web/20250124223812/https://www.dataversity.net/heart-of-the-matter-demystifying-copying-in-the-training-of-llms/].

86. *See, e.g.*, Nicholas Carlini et al., *Quantifying Memorization Across Neural Language Models*, ARXIV (Mar. 6, 2023), https://arxiv.org/pdf/2202.07646 [https://perma.cc/76X6-DSNQ] [https://web.archive.org/web/20250209033932/https://arxiv.org/pdf/2202.07646]; Stella Biderman et al., *Emergent and Predictable Memorization in Large Language Models*, ARXIV (May 31, 2023), https://arxiv.org/pdf/2304.11158 [https://perma.cc/R32T-YVRP] [https://web.archive.org/web/20250327131328/https://arxiv.org/pdf/2304.11158].

87. Chosakukenhō [Copyright Act], Act No. 48 of 1970, art. 30–4 (Japan).

88. Copyright Act 2021, part 5, div. 8, § 244 (Sing.).

89. *See* Directive 2019/790, of the European Parliament and of the Council of 17 April 2019 on Copyright and Related Rights in the Digital Single Market and Amending Directives 96/9/EC and 2001/29/EC, art. 2(2), 2019 O.J. (L 130) 92; *id.* art. 4.

90. Copyright, Designs and Patents Act 1988, c. 3, § 29A (Eng.).

91. Berne Convention, *supra* note 27, art. 9(2); *see also* Agreement on Trade-Related Aspects of Intellectual Property Rights art. 13, Apr. 15, 1994, Marrakesh Agreement Establishing the World Trade Organization, Annex 1C, 1869 U.N.T.S. 299; World Intellectual Property Organization (WIPO) Copyright Treaty art. 10, Dec. 20, 1996, 2186 U.N.T.S. 121 (containing similar stipulations).

highlights the necessity of meeting all three criteria collectively and in sequential order,[92] aiming to recalibrate the evolving balance of copyright law, particularly in light of advancements in reproduction technologies and the challenges posed by the digital environment.[93]

As Rosati correctly highlights, the broad copying of protected content for training especially of generative AI models, and especially in cases where such use could reasonably be licensed by rightsholders, may violate the TDM exception.[94] This is due to the second requirement of the three-step test, which prohibits uses that conflict with the normal exploitation of a work. Furthermore, employing protected content to train AI systems capable of producing outputs that substitute for the original works—or for content protected under related rights—would also fall outside the scope of the TDM exception and limitation, failing to meet its legal requirements.

This principle is also reflected in the U.S. context under the fair use doctrine. As noted in the 2000 WTO Panel Report on *United States—Section 110(5) of the US Copyright Act*, an exception or limitation conflicts with the normal exploitation of a work when the exempted uses compete economically with the ways rightsholders typically derive value from their rights, "thereby depriv[ing] them of significant or tangible commercial gains."[95] More recently, the 2023 U.S. Supreme Court decision in *Andy Warhol Foundation for the Visual Arts, Inc. v. Goldsmith* highlighted that the fairness of unlicensed uses of protected content, including for AI training, depends significantly on the availability of a licensing market for such purposes.[96] As licensing models for training data continue to evolve, the applicability of fair use to AI training on unlicensed protected works appears increasingly uncertain, according to Ginsburg.[97]

In sum, the evolving legal landscape surrounding AI training highlights the need for innovative frameworks that recognize both the potential of generative AI and the enduring importance of copyright protection. While certain jurisdictions have introduced TDM exceptions, the applicability and scope of these exceptions remain limited and uncertain. Sole reliance on exceptions is neither viable nor legally certain, as each claim must satisfy the still untested conditions of national TDM provisions and meet all three requirements of the three-step test. This delicate balance makes clear that widespread, unlicensed use of protected content cannot be sustained as AI technologies advance.

IFRRO strongly believes that it is possible to be both pro-innovation and pro-copyright. Rights holders and users have a longstanding history of relying on

92. *See* 2 WIPO, RECORDS OF THE INTELLECTUAL PROPERTY CONFERENCE OF STOCKHOLM ¶ 85 (1971).

93. MARTIN R. F. SENFTLEBEN, COPYRIGHT, LIMITATIONS AND THE THREE-STEP TEST: AN ANALYSIS OF THE THREE-STEP TEST IN INTERNATIONAL AND EC COPYRIGHT LAW 35 (2004).

94. *See generally* Eleonora Rosati, *No Step-Free Copyright Exceptions: The Role of the Three-step in Defining Permitted Uses of Protected Content (Including TDM for AI-Training Purposes)*, 46 EUR. INTELL. PROP. J. 262 (2024).

95. Panel Report, *United States—Section 110(5) of the US Copyright Act*, ¶ 6.183, WTO Doc. WT/DS160/R (adopted June 15, 2000).

96. 143 S. Ct. 1258 (2023).

97. *See* Jane C. Ginsburg, *Fair Use in the US Redux: Reformed or Still Deformed?*, SING. J. LEGAL STUD. 52 (2024).

licensing—both individual and collective—to ensure authorized, remunerated access to copyrighted materials. By providing stable, predictable, and legally sound mechanisms, licensing ensure that innovators can tap into high-quality training data while authors and publishers retain fair remuneration for their works and investments. This dual commitment to advancing technology and safeguarding creative rights charts a course toward responsible, sustainable growth in the AI ecosystem.[98]

III. THE EMERGENCE OF COLLECTIVE LICENSING SOLUTIONS

In recent years, the number of agreements between AI companies and individual creative industry stakeholders has steadily increased, highlighting the ongoing relevance of direct licensing. In parallel, recognizing the growing demand for lawful and responsible access to their repertoires, many RROs have begun developing collective licensing options specifically tailored for AI use cases. These collective solutions—pioneered by organizations such as the CCC in the United States, CLA in the United Kingdom, VG Wort in the European Union, the Copyright Agency in Australia, and more recently the Japan Academic Association for Copyright Clearance ("JAC") in Japan—represent a significant shift in how licensed content can be leveraged within AI systems. CCC has launched a new licensing solution for the internal use of copyrighted content within AI systems.[99] This new offering is part of CCC's Annual Copyright Licenses, a non-exclusive, voluntary collective licensing solution that provides businesses access to millions of works. The inclusion of AI re-use rights within the ACL makes it the first-ever collective licensing option for the internal use of copyrighted materials in AI systems among IFRRO members. This move aims to help companies efficiently acquire the necessary rights to incorporate copyrighted materials into their AI systems while ensuring that rights holders are appropriately remunerated. The addition of harmonized rights for AI content use strengthens the ACL's value proposition for businesses, offering a streamlined solution for legal content usage in training of LLMs. In parallel, CCC has announced the forthcoming launch of an AI Systems Training License, which will permit AI developers to use lawfully acquired copyrighted works to train AI systems and generate externally accessible outputs. By facilitating streamlined access to a wide-ranging repertoire spanning science, business, media, and other sectors, the license addresses a critical gap in current licensing infrastructure. The dual availability of licensing options for both

98. *See IFRRO Adopts Position Statement on Artificial Intelligence*, IFFRO (Mar. 29, 2023), https://ifrro.org/page/article-detail/ifrro-adopts-position-statement-on-artificial-intelligence/ [https://perma.cc/26TQ-32Z2] [https://web.archive.org/web/20250125194410/https://ifrro.org/page/article-detail/ifrro-adopts-position-statement-on-artificial-intelligence/].

99. *CCC Launches Collective AI License*, COPYRIGHT CLEARANCE CTR. (July 25, 2024), https://www.copyright.com/blog/ccc-launches-collective-ai-license/ [https://perma.cc/TZ2X-HGNZ] [https://web.archive.org/web/20250125204341/https://www.copyright.com/blog/ccc-launches-collective-ai-license/].

internal application and external model training reinforces CCC's role as a central provider of comprehensive, legally compliant AI content solutions.[100]

In Asia, the JAC, a long-standing IFRRO member, has expanded its Digital Copyright License ("DCL") to include rights for the internal use of copyrighted materials within AI systems. Developed in partnership with RightsDirect Japan, a subsidiary of CCC, this enhanced license offers companies in Japan a secure and practical way to use published content in AI tools for tasks such as summarization, information extraction, and internal analysis. It provides access to a diverse repertoire of content from global publishers, academic societies, and other rights holders, covering works in English, Japanese, and many other languages.[101]

Across the Atlantic, CLA in the UK has introduced a new TDM License, developed in collaboration with its member organizations, to support businesses and public sector bodies in using published content for TDM purposes.[102] This license allows organizations to legally copy, store, and analyze copyrighted works to uncover insights, trends, and patterns from large volumes of data. It applies to various types of published content, including journals, books, and websites, and can be added to existing CLA business licenses.[103] Building on this foundation, CLA has approved additional permissions for its corporate and public sector licenses, reflecting the surge in generative AI adoption across professional environments. Beginning in early 2025, employees at licensed entities may use published content as prompts on enterprise AI platforms, including CoPilot, ChatGPT, and Gemini.[104] While these permissions

100. *CCC Announces AI Systems Training License for the External Use of Copyrighted Works Coming Soon*, COPYRIGHT CLEARANCE CTR. (Mar. 4, 2025), https://www.copyright.com/media-press-releases/ccc-announces-ai-systems-training-license-for-the-external-use-of-copyrighted-works-coming-soon/ [https://perma.cc/B9YK-3L8C] [https://web.archive.org/web/20250513182014/https://www.copyright.com/web/20250513182014/https://www.copyright.com/media-press-releases/ccc-announces-ai-systems-training-license-for-the-external-use-of-copyrighted-works-coming-soon/].

101. *Japan Academic Association for Copyright Clearance and RightsDirect Japan Announce the Availability of AI Re-Use Rights for Digital Copyright License*, BUS. WIRE (Apr. 9, 2025), https://www.businesswire.com/news/home/20250409032666/en/Japan-Academic-Association-for-Copyright-Clearance-and-RightsDirect-Japan-Announce-the-Availability-of-AI-Re-Use-Rights-for-Digital-Copyright-License [https://web.archive.org/web/20250513181819/https://www.businesswire.com/news/home/20250409032666/en/Japan-Academic-Association-for-Copyright-Clearance-and-RightsDirect-Japan-Announce-the-Availability-of-AI-Re-Use-Rights-for-Digital-Copyright-License].

102. *CLA Board Approves the Inclusion of Workplace AI Permissions To Corporate and Public Sector Licences*, COPYRIGHT LICENSING AGENCY (Dec. 6, 2024), https://cla.co.uk/cla-board-approves-the-inclusion-of-workplace-ai-permissions-to-corporate-and-public-sector-licences/ [https://perma.cc/VF3B-S3DG] [https://web.archive.org/web/20250124233146/https://cla.co.uk/web/20250124233146/https://cla.co.uk/cla-board-approves-the-inclusion-of-workplace-ai-permissions-to-corporate-and-public-sector-licences/].

103. COPYRIGHT LICENSING AGENCY, *Text and Data Mining (TDM) Licence*, https://cla.co.uk/tdm-licensing/ [https://perma.cc/Q26J-7A5K] [https://web.archive.org/web/20250124232534/https://cla.co.uk/web/20250124232534/https://cla.co.uk/tdm-licensing/] (last visited Jan. 24, 2025).

104. For more information, see *New Generative AI License Permissions by CLA*, IFRRO (Mar. 4, 2025), https://ifrro.org/page/article-detail/new-generative-ai-licence-permissions-by-cla/?k=e20250304906015574 [https://perma.cc/D9HD-CK7X]

streamline workplace AI usage, rights associated with training large language models remain under consultation.

Starting in February 2025, the Copyright Agency in Australia is extending its Annual Business License to cover staff at licensed businesses who use third-party content in prompts for AI tools or copy and share AI-generated outputs internally.[105] This license extension allows staff to incorporate copyrighted material, such as journal articles or book excerpts, into AI prompts for generating summaries, reports, graphs, and presentations, and then share those outputs with colleagues within the organization. However, the extension includes conditions to ensure that the content remains within the business environment and is not used for external purposes, such as training AI systems or creating commercial products.

In the European Union, VG Wort has become the first RRO to introduce an AI licensing framework.[106] Its new license permits companies and authorities to use copyrighted works internally for AI training and output generation provided that resulting summaries or evaluations are not sold or otherwise distributed externally. This solution is particularly relevant to sectors like life sciences, where entities have historically accessed and archived copyrighted works under existing VG Wort licenses.

Building on the growing global momentum around AI licensing, the Authors' Licensing and Collecting Society ("ALCS") has recently surveyed more than 13,500 of its members, gathering insights that underscore the pressing need for new rights frameworks.[107] This feedback reflects clear expectations among creators: 91% believe permission should be secured before using their works to train AI, 96% expect fair remuneration, and 87% seek proper attribution.[108] Additionally, 81% would support a collective licensing agreement if ALCS can secure one.[109] Against this backdrop, ALCS is now considering licensing solutions to address the emerging AI use cases.[110] One

[https://web.archive.org/web/20250513182236/https://ifrro.org/page/article-detail/new-generative-ai-licence-permissions-by-cla/?k=e20250304906015574].

105. *Annual Business Licence Extension To Staff Use of AI Tools*, COPYRIGHT AGENCY (Dec. 2024), https://www.copyright.com.au/membership/ai-and-copyright-in-australia/extension-of-annual-business-licence-to-staff-use-of-ai-tools/ [https://perma.cc/WE69-L3SZ] [https://web.archive.org/web/20250124233446/https://www.copyright.com.au/membership/ai-and-copyright-in-australia/extension-of-annual-business-licence-to-staff-use-of-ai-tools/].

106. VG WORT, *Sondernewsletter zur KI-Lizenz Oktober 2024* [Special Newsletter on the AI License October 2024], https://news.vgwort.de/online.php?u=6Tq9WGt2361 [https://web.archive.org/web/20250124234815/https://news.vgwort.de/online.php?u=6Tq9WGt2361] (last visited Jan. 24, 2025).

107. AUTHORS' LICENSING & COLLECTING SOC'Y, A BRAVE NEW WORLD? A SURVEY OF WRITERS ON AI, REMUNERATION, TRANSPARENCY AND CHOICE 5 (2024), https://d16dqzv7ay57st.cloudfront.net/uploads/2024/12/A-Brave-New-World-_ALCS_AI_Report.pdf [https://perma.cc/JG2Y-9B6P] [https://web.archive.org/web/20241204092526/https://d16dqzv7ay57st.cloudfront.net/uploads/2024/12/A-Brave-New-World-_ALCS_AI_Report.pdf].

108. *Id.*

109. *Id.*

110. *AI Licences*, AUTHORS' LICENSING & COLLECTING SOC'Y, https://www.alcs.co.uk/ai-licences/ [https://perma.cc/4R69-ZC9R]

option under review—a "Prompt" License—would permit the input of extracts into AI applications for immediate, task-based outputs like summaries or analyses, without training the underlying AI model.[111] Another option—a "Training" License—would grant AI developers the rights to incorporate ALCS members' works into the foundational datasets that fuel generative AI capabilities.[112]

These developments mark a transformative moment, especially for artificial intelligence. By expanding the scope of existing licenses and introducing new options specifically tailored to AI, RROs and other licensing bodies are providing the infrastructure needed for lawful and responsible content usage within increasingly sophisticated systems. Notably, these initial efforts are just the beginning: More and more collective solutions are poised to emerge around the world, each reflecting local industry needs, regulatory environments, and creative ecosystems. At the same time, these licensing frameworks are evolving to meet rights holders' expectations, while enabling businesses, educational institutions, and other organizations to access the works they rely on in ways that keep pace with emerging technologies.

IV. CONCLUSION

In conclusion, innovative licensing solutions from collective management bodies provide a responsible and sustainable pathway forward, allowing rights holders to benefit from AI advancements without hindering the copyright ecosystem. These frameworks enable both authors and publishers to effectively monetize their works, ensuring they are fairly rewarded for their works and investments while supporting the ethical and lawful development of AI technologies. As AI technology continues to evolve, a robust and adaptable collective management framework will be essential for addressing emerging challenges, protecting the rights of authors and publishers, and maintaining a vibrant and equitable creative landscape.

[https://web.archive.org/web/20250125000020/https://www.alcs.co.uk/ai-licences/] (last visited Jan. 25, 2025).

111. *Id.*

112. *Id.*

Market-Based Licensing for Publishers' Works Is Feasible. Big Tech Agrees.

*Matthew Stratton**

ABSTRACT

Generative AI ("GAI") model developers prioritized speed to market over compliance with copyright law with respect to use of copyrighted works for training their models. Now facing over forty lawsuits, they have asserted fair use to evade responsibility, and they claim that licensing all necessary works is impossible.

This Article focuses on professionally created works only, with an emphasis on publishers' works, and demonstrates that market-based licensing of professionally created works for training GAI models is feasible as measured by the number of licenses and the ability of GAI developers to afford them—both of which are points on which Big Tech agrees. The Article also provides insights on the licensing marketplace for publishers' works as relevant to training GAI models. Finally, the Article underscores that the public interest is squarely on the side of market-based licensing because all stakeholders benefit, and it will help ensure that publishers and authors may continue their vital contributions to America's political, intellectual, and cultural systems.

INTRODUCTION

"The unlicensed use of creative works for training generative AI is a major, unjust threat to the livelihoods of the people behind those works, and must not be permitted."[1]

* Matthew Stratton was formerly Deputy General Counsel for the Association of American Publishers ("AAP"), a not-for-profit organization that represents the leading book, journal, and education publishers in the United States on matters of law and policy. This Article is written in his personal capacity, and any views expressed are his own and not necessarily those of AAP.

1. *Statement on AI Training*, AI TRAINING STATEMENT, https://www.aitrainingstatement.org/ [https://perma.cc/PNE6-68BJ] [https://web.archive.org/web/20250125211211/https://www.aitrainingstatement.org/] (last visited Feb. 8, 2025).

On October 22, 2024, creators worldwide signed the above public statement condemning the theft of creative and intellectual works of authorship by Big Tech companies for training their consumer-facing generative AI ("GAI") models.[2] By October 31, 2024, there were over 30,000 signatories including James Patterson, Julianne Moore, Thom Yorke, Sir Kazuo Ishiguro, Roger Daltry, Rosario Dawson, and many other celebrated artists.[3] The campaign was organized by Ed Newton-Rex, CEO of Fairly Trained,[4] who publicly resigned from his position as Vice President of Audio at Stability AI in November 2023 in protest to the company's assertion that training its model on unlicensed, copyright-protected works is fair use.[5]

Professional creators make a particularly compelling argument that market-based licensing for training of GAI models is required, which courts should confirm.[6] In the case of large-language models ("LLMs"), the professional creators of textual works are represented principally in just two sectors: (1) publishing; and (2) news/media organizations. While it is legitimate to question how best to license the voluminous amount of *non-professional* copyrighted textual works available on the *entire internet*, it is illegitimate to confound that question with the case of licensing works from professional creators. This Article reinforces that market-based licensing of professional works for training LLMs is feasible by demonstrating that the number of licenses is manageable and that GAI developers can afford them—both of which are points on which Big Tech agrees—and the Article further underscores that the public interest is squarely on the side of market-based licensing.

While this Article focuses on the publishing sector (since it was my focus professionally at the Association of American Publishers), it is supplemented with data on licensing for news/media organizations to emphasize the feasibility for licensing professionally created copyrighted content *overall* for LLMs.

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2. *Id.*; *See* Jasmine Scott, *Authors and Other Creatives Sign Statement Rejecting Unlicensed Training of Generative AI Models on Creative Work*, SOC'Y AUTHORS (Oct. 22, 2024), https://societyofauthors.org/2024/10/22/authors-and-other-creatives-sign-statement-rejecting-unlicensed-training-of-generative-ai-models-on-creative-work/ [https://perma.cc/6W69-2M46].

3. *Id.*; Ed Newton-Rex (@ednewtonrex), X (Oct. 29, 2024, 1:49 AM), https://x.com/ednewtonrex/status/1850942855147372749 [https://perma.cc/4L78-4HVL].

4. Fairly Trained is a nonprofit that certifies generative AI models that do not use any copyrighted work for training without a license. *About*, FAIRLY TRAINED, https://www.fairlytrained.org/about [https://perma.cc/DC2N-WFCP] [https://web.archive.org/web/20250125211813/https://www.fairlytrained.org/about] (last visited Feb. 7, 2025). AAP President & CEO Maria Pallante is an Adviser to Fairly Trained. *Id.*

5. Ed Newton-Rex, *Why I Just Resigned from My Job in Generative AI*, MUSIC BUS. WORLDWIDE (Nov. 15, 2023), https://www.musicbusinessworldwide.com/why-just-resigned-from-my-job-generative-ai/ [https://perma.cc/FMW8-2D5D] [https://web.archive.org/web/20250125212019/https://www.musicbusinessworldwide.com/why-just-resigned-from-my-job-generative-ai/].

6. At the time of writing in December 2024, no court decisions have addressed whether fair use applies to the training of LLMs on copyrighted works, and the U.S. Copyright Office has not yet released the part of its report on copyright and artificial intelligence addressing this issue. *See generally* Artificial Intelligence and Copyright, 88 Fed. Reg. 59,942 (Aug. 30, 2023).

I. THE PUBLISHING INDUSTRY TODAY

Today's U.S. publishing industry is diverse, ranging from major commercial book and journal publishers to small, non-profit, university, and scholarly presses, as well as leading publishers of educational materials and digital learning platforms. Publishers' works make vital contributions to the nation's political, intellectual, and cultural systems. They:

> Present novel ideas and new facts unearthed by authors,
>
> Hold governments, businesses, and citizens accountable,
>
> Contribute to a vibrant culture,
>
> Educate and inspire citizens of all ages,
>
> Progress medicine and science, and
>
> Serve as a source of truth at a time when there is rampant misinformation spread through the internet, social networks, and other media—a harm which GAI only risks accelerating.[7]

The vibrancy of the U.S. publishing industry, however, should not be taken for granted. History has amply demonstrated the deleterious effects that an unrestrained digital environment may have on the breadth and quality of new works in other creative sectors. If courts were to find erroneously that fair use applied to the training of GAI models with publishers' works, there risks an irreversible "U-turn" in the breadth and quality of published works to the detriment of the American public and democracy.

For reasons already well-explained by many copyright experts, courts should not find fair use with respect to training GAI models on publishers' works.[8] There is nothing exceptional about the development and commercial exploitation of GAI models by Big Tech to change the basic premise that publishers must be remunerated for the use of their copyrighted works through licensing based on exclusive rights under the Copyright Act. More specifically, there is no question that books and articles are the foundation and "most prized data" inside LLMs;[9] that GAI developers sought

7. Ass'n of Am. Publishers, Comment Letter on the U.S. Copyright Office's Notice of Inquiry on Artificial Intelligence and Copyright, at 27 (Oct. 30, 2023) [hereinafter, AAP Comments], https://www.regulations.gov/comment/COLC-2023-0006-9070 [https://perma.cc/ZZ9T-BL89] [https://web.archive.org/web/20250125212011/https://www.regulations.gov/comment/COLC-2023-0006-9070].

8. In view of the ample and persuasive existing scholarship concluding that the fair use defense should not succeed, this Article will not address fair use in depth. For further reading, see Jacqueline C. Charlesworth, *Generative AI's Illusory Case for Fair Use*, 27 VAND. J. ENT. & TECH. L. (forthcoming 2025).

9. Cade Metz et al., *How Tech Giants Cut Corners To Harvest Data for A.I.*, N.Y. TIMES (Apr. 8, 2024), https://www.nytimes.com/2024/04/06/technology/tech-giants-harvest-data-artificial-intelligence.html [https://web.archive.org/web/20250208030143/https://www.nytimes.com/2024/04/06/technology/tech-giants-harvest-data-artificial-intelligence.html] ("The most prized data, A.I. researchers said, is high-quality

the expressive content of these works which they have stored in the models through the encoding of tokens into vectors; and that training violates publishers' exclusive rights. Furthermore, as explained in this Article, there is no "impossibility" of licensing or other countervailing public policy reason to waive the basic operation of copyright law, which requires downstream users to license what they do not own but seek for their derivative uses. "Business as usual" should prevail.

II. LICENSING PROFESSIONALLY-CREATED COPYRIGHTED WORKS IS FEASIBLE AS EVIDENCED BY THE NUMBER OF LICENSES REQUIRED FOR THE WORKS OF THE PUBLISHING AND NEWS/MEDIA SECTORS AND THE ABILITY OF THE GAI DEVELOPERS TO AFFORD THEM

A. INITIALLY, LICENSING WAS NOT A PRIORITY FOR BIG TECH IN THE GAI ARMS RACE

Although the licensing market for works to train GAI models is rapidly growing, licensing is not yet ubiquitous. The reason is that licensing has not been a priority for Big Tech. Let us briefly review how we got here.

The Big Tech companies made a calculated decision to not license content.[10] In a "rapidly developing and incredibly competitive marketplace,"[11] they wanted to get to market first and accepted that after the product was out, there would be the prospect of lawsuits and licenses.[12] For an internet-based service with a worldwide market, being first or having an early competitive advantage may separate the billion (or trillion) dollar winners from the also-rans. Winning is all that matters. A trail of lawsuits and the potential for reform is mere ancillary clean-up work. "Move fast and break things" is nothing new. The claim by a Silicon Valley venture capital fund that is one of the most aggressive investors in AI that developers acted on the "settled expectations" of fair use is unconvincing, self-serving *ex post* rhetoric.[13]

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information, such as published books and articles, which have been carefully written and edited by professionals.").

10. *E.g.*, AAP Comments, *supra* note 7, at 9 ("AAP members were not approached for authorization or license to use their works in the training of Gen AI systems that publicly launched in 2022.").

11. *See* Declaration of Jared Kaplan in Support of Defendants' Opposition to Plaintiffs' Renewed Motion for Preliminary Injunction, Concord Music Grp., Inc. v. Anthropic PBC, No. 24 Civ. 3811 (N.D. Cal. Dec. 23, 2024) (claiming that a delay caused by a preliminary injunction would "inflict substantial harm on Anthropic's business by . . . hurting its ability to innovate and iterate in a rapidly developing and incredibly competitive marketplace").

12. *See, e.g.*, Metz et al., *supra* note 9 ("At Meta, which owns Facebook and Instagram, managers, lawyers and engineers last year discussed buying the publishing house Simon & Schuster to procure long works, according to recordings of internal meetings obtained by The Times. They also conferred on gathering copyrighted data from across the internet, even if that meant facing lawsuits. Negotiating licenses with publishers, artists, musicians and the news industry would take too long, they said.").

13. Andreessen Horowitz (a16z), Comment Letter on the U.S. Copyright Office's Notice of Inquiry on Artificial Intelligence and Copyright, at 6 (Oct. 30, 2023) [hereinafter, Andreessen Horowitz Comments], https://www.regulations.gov/comment/COLC-2023-0006-9057 [https://perma.cc/SB7S-EW99]

As of writing, only two years have passed since OpenAI's ChatGPT was released in November 2022.[14] Quickly it became a public phenomenon, reaching 100 million users in approximately two months.[15] Since then, creators and copyright owners have become aware of the infringement, resulting in over forty lawsuits and also approximately fifty publicly reported LLM licensing deals[16]—plus the nearly 4,000 licenses entered into by Dow Jones alone[17]—and an unknown number of deals that have not been publicly reported. There will be many more licenses if courts properly reject Big Tech's fair use defense. Until such time as the courts so rule, Big Tech may continue to license selectively and at times non-publicly to enhance their chances to prevail on the fair use defense.

More specifically, the fourth statutory factor of the fair use analysis is "the effect of the use upon the potential market for or value of the copyrighted work."[18] GAI developers are aware that evidence of an existing and growing licensing market for the use of copyrighted works to train GAI models will undermine their fair use defense.[19]

[https://web.archive.org/web/20250125212358/https://www.regulations.gov/comment/COLC-2023-0006-9057].

14. Bernard Marr, *A Short History of ChatGPT: How We Got To Where We Are Today*, FORBES (May 19, 2023), https://www.forbes.com/sites/bernardmarr/2023/05/19/a-short-history-of-chatgpt-how-we-got-to-where-we-are-today/ [https://perma.cc/KSC4-3R4M] [https://web.archive.org/web/20250125212243/https://www.forbes.com/sites/bernardmarr/2023/05/19/a-short-history-of-chatgpt-how-we-got-to-where-we-are-today/].

15. Dan Milmo, *ChatGPT Reaches 100 Million Users Two Months After Launch*, GUARDIAN (Feb. 2, 2023), https://www.theguardian.com/technology/2023/feb/02/chatgpt-100-million-users-open-ai-fastest-growing-app [https://perma.cc/M9GF-4QDG] [https://web.archive.org/web/20250125212455/https://www.theguardian.com/technology/2023/feb/02/chatgpt-100-million-users-open-ai-fastest-growing-app].

16. *See* PUBLISHERS ASS'N, RESPONSE TO CONSULTATION ON COPYRIGHT AND AI 24 (2025), https://www.publishers.org.uk/wp-content/uploads/2025/02/Publishers-Association-Copyright-and-AI-Consultation-Response-25-February-2025.pdf [https://perma.cc/AAM2-EJVQ] [(listing publicly-reported licensing deals); Sara Gaglione, *2024 in Review: A Timeline of the Major Deals Between Publishers and AI* Companies, DIGIDAY (Dec. 27, 2024), https://digiday.com/media/2024-in-review-a-timeline-of-the-major-deals-between-publishers-and-ai-companies/ [https://perma.cc/9R7R-N6HB] [https://web.archive.org/web/20250323121234/https://digiday.com/media/2024-in-review-a-timeline-of-the-major-deals-between-publishers-and-ai-companies/]; Anna Tong et al., *Exclusive: Reddit in AI Content Licensing Deal with Google*, REUTERS (Feb. 22, 2024), https://www.reuters.com/technology/reddit-ai-content-licensing-deal-with-google-sources-say-2024-02-22/ (last visited Apr. 3, 2025); *Associated Press, OpenAI Partner To Explore Generative AI Use in News*, REUTERS (July 14, 2023), https://www.reuters.com/business/media-telecom/associated-press-openai-partner-explore-generative-ai-use-news-2023-07-13/ (last visited Apr. 3, 2025).

17. Andrew Deck, *Dow Jones Negotiates AI Usage Agreements with Nearly 4,000 News Publishers*, NIEMANLAB (Dec. 5, 2024), https://www.niemanlab.org/2024/12/dow-jones-negotiates-ai-usage-agreements-with-nearly-4000-news-publishers/ [https://perma.cc/Q828-EP9H] [https://web.archive.org/web/20250125212457/https://www.niemanlab.org/2024/12/dow-jones-negotiates-ai-usage-agreements-with-nearly-4000-news-publishers/].

18. 17 U.S.C. § 107(4).

19. *See, e.g.*, Princeton Univ. Press v. Mich. Document Servs., Inc., 99 F.3d 1381, 1387 (6th Cir. 1996) ("Where . . . the copyright holder clearly does have an interest in exploiting a licensing market—and especially where the copyright holder has actually succeeded in doing so—'it is appropriate that potential licensing revenues . . . be considered in a fair use analysis.'" (quoting Am. Geophysical Union v. Texaco Inc., 60 F.3d 913, 930 (2d Cir. 1994)).

Accordingly, they have been incentivized to avoid entering into licensing agreements, arguing that doing so would be impossible, and they have gone so far as to label license agreements as access agreements, perhaps to avoid a prejudicial finding on the fourth factor.[20]

One should not be distracted by Big Tech's claims about challenges with trying to license every copyright-protected work on the internet.[21] This is a red herring. Whether there are certain categories of nonprofessionally created copyrighted works that may be amenable to licensing solutions other than or in addition to market-based licensing merits further analysis (and is beyond the scope of this Article). However, works of professional content creators like publishers, the professional news media, and others clearly are among those that must be subject to market-based licensing for LLMs.

B. ENTERING INTO THE NUMBER OF LICENSES REQUIRED FOR TRAINING LLMS ON THE WORKS OF PUBLISHERS AND NEWS/MEDIA ORGANIZATIONS IS FEASIBLE

Focusing on the works of professional publishers and news/media organizations—since they constitute the vast majority of copyright-protected professionally created works used for training LLMs by far—it is undeniable that they are susceptible to market-based licensing.[22]

Licensing publishers' works is feasible in terms of volume of titles and licenses. For example, regarding the volume of book titles, it has been reported that the Books3 pirate training dataset with around 190,000 books in the corpus was used by large GAI

20. *See, e.g.*, Defendant Anthropic PBC's Opposition to Plaintiffs' Renewed Motion for Preliminary Injunction at 23, Concord Music Grp., Inc. v. Anthropic PBC, No. 24 Civ. 3811 (N.D. Cal. Aug. 22, 2024) ("OpenAI's fair use position casts doubt on [Plaintiffs' expert's] assumption that these deals must be about licensing data for LLM training."); *but see* Reply Declaration of Michael D. Smith in Support of Plaintiffs' Reply in Support of Motion for Preliminary Injunction ¶¶ 16–21, Concord Music Grp., Inc. v. Anthropic PBC, No. 24 Civ. 3811 (N.D. Cal. Sept. 12, 2024) (setting forth ample evidence from press coverage and press statements that the licenses include terms permitting AI training).

21. *See, e.g.*, OpenAI, Comment Letter on the U.S. Copyright Office's Notice of Inquiry on Artificial Intelligence and Copyright, at 13 (Oct. 30, 2023) [hereinafter, OpenAI Comments], https://www.regulations.gov/comment/COLC-2023-0006-8906 [https://perma.cc/ZF8M-TN55] [https://web.archive.org/web/20241108223225/https://www.regulations.gov/comment/COLC-2023-0006-8906] ("The diversity and scale of the information available on the internet is thus both necessary to training a 'well-educated' model . . . and also makes licensing every copyrightable work contained therein effectively impossible."); Declaration of Steven R. Peterson, PhD in Support of Defendant's Opposition to Plaintiffs' Renewed Motion for Preliminary Injunction ¶ 10, Concord Music Grp., Inc. v. Anthropic PBC, No. 24 Civ. 3811 (N.D. Cal. Aug. 22, 2024) ("In short, the claim that a market involving many thousands or millions of individual transactions to license huge volumes of copyrighted text covered by millions of copyrights would fail is unremarkable as a matter of economics.").

22. It is also undeniable that licensing song lyrics for training LLMs is feasible. Anthropic concedes that "[t]here is an established market for the display of song lyrics on the internet . . . ." Defendant Anthropic PBC's Surresponse to Plaintiffs' Renewed Motion for Preliminary Injunction at 2, Concord Music Grp., Inc. v. Anthropic PBC, No. 24 Civ. 3811 (N.D. Cal. Oct. 23, 2024). While license terms for training would be different, the established market for display shows that the scope of works and rightsholders is not prohibitive.

developers to train their LLMs.[23] In comparison, a license with a single publisher could potentially cover more than 100,000 titles. As for the volume of licenses, for a sense of scale, the AAP has approximately 110 members across its trade, education, and professional and scholarly publishing sectors.[24] For training purposes within any given sector, negotiating licenses with some percentage of that subset of the industry is quite feasible.

Similarly, the volume of professional news content is equally susceptible to licensing. Licenses with fifteen news portfolio publishers[25] would cover 9.91% of the URLs in OpenWebText, 12.04% of the URLs in OpenWebText2, and 13.47% of the URLs in the top 1,000 domains in WebText.[26] With up to fifteen counterparties, GAI developers could easily license broad news media coverage for training purposes. Moreover, according to the News/Media Alliance, its members "stand ready to come to the table and discuss reasonable licensing solutions to facilitate reliable, updated access to trustworthy expressed content, something that will benefit all parties and society at large . . . ."[27]

Certain Big Tech (and related party) submissions in response to the U.S. Copyright Office's Notice of Inquiry and Request for Comments on Artificial Intelligence and Copyright acknowledge, albeit with varying degrees of directness, that it is the licensing of unprofessional works across the entire internet that they contend presents certain licensing challenges, not the licensing of professionally created works such as those of publishers and news/media organizations. For example:

23. Kate Knibbs, *The Battle Over Books3 Could Change AI Forever*, WIRED (Sept. 4, 2023), https://www.wired.com/story/battle-over-books3/ [https://perma.cc/UCA6-PYQF] [https://web.archive.org/web/20250323123006/https://www.wired.com/story/battle-over-books3/].

24. Ass'n of Am. Publishers, *Our Members*, https://publishers.org/who-we-are/our-members/ [https://perma.cc/PF7G-RQT5] [https://web.archive.org/web/20250120142631/https://publishers.org/who-we-are/our-members/] (last visited Jan. 20, 2025).

25. The fifteen portfolio publishers (with relevant subsidiary brands in parentheses) include: Advance (Condé Nast, Advance Local), Alden Global Capital (Tribune Publishing, MediaNews Group), Axel Springer, Bustle Digital Group, Buzzfeed, Inc., Future plc, Gannett, Hearst, IAC (Dotdash Meredith and other divisions), News Corp, The New York Times Company, Penske Media Corporation, Vox Media, The Washington Post, and Ziff Davis. George Wukoson & Joey Fortuna, *The Predominant Use of High-Authority Commercial Web Publisher Content To Train Leading LLMs*, at 9 (Nov. 4, 2024), https://www.ziffdavis.com/wp-content/uploads/2024/11/The-Predominant-Use-of-High-Authority-Commercial-Web-Publisher-Content-to-Train-Leading-LLMs.pdf [https://perma.cc/B2HD-ZM2D] [https://web.archive.org/web/20250214201601/https://www.ziffdavis.com/wp-content/uploads/2024/11/The-Predominant-Use-of-High-Authority-Commercial-Web-Publisher-Content-to-Train-Leading-LLMs.pdf].

26. *Id.* at 2–4, 11–12. Note that the WebText percentage is limited to the top 1,000 domain names because OpenAI only released a list of the top 1,000 domain names in that dataset. *Id.* at 3.

27. News/Media Alliance, Comment Letter on the U.S. Copyright Office's Notice of Inquiry on Artificial Intelligence and Copyright, at 39–40 (Oct. 30, 2023), https://www.regulations.gov/comment/COLC-2023-0006-8956 [https://perma.cc/UG28-MWHR] [https://web.archive.org/web/20250120142809/https://www.regulations.gov/comment/COLC-2023-0006-8956].

- Although Andreessen Horowitz initially states that "[t]he unique considerations involved in training AI models make direct, voluntary licensing impossible," it reveals that its claimed licensing concern is for nonprofessional content:

> [T]he reason AI models are able to do what they can do today is that the internet has given AI developers ready access to a broad range of content, *much of which can't reasonably be licensed—everything from blog posts to social media threads to customer reviews on shopping sites.*[28]

- Anthropic observes that "a regime that *always* requires licensing for use of material in training would be inappropriate; it would, at a minimum, effectively lock up access to the vast majority of works, since *most works are not actively managed and licensed in any way.*"[29]
- Meta provides a hypothetical where it *concedes licensing of professionally created works including books* but makes the case for the importance of access to a broader array of "*user-generated or orphaned*" *content* (e.g., internet forum comments or memes) for fuller context around the subjects of the professionally created works.[30]
- OpenAI states that the "diversity and scale of the information available on the internet is thus both necessary to training a 'well-educated' model . . . and also makes licensing *every copyrightable work contained therein* effectively impossible."[31]

Likewise, in internal meetings at Meta, managers, lawyers, and engineers discussed that in the interest of speed they preferred to avoid negotiating licenses with publishers, artists, musicians, and the news industry, not that negotiating licenses would be infeasible.[32] And former employees of GAI developers like Ed Newton-Rex and Suchir Balaji have effectively acted as whistleblowers on their former employers' stances on unlicensed training by quitting in protest.[33]

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28. Andreessen Horowitz Comments, *supra* note 13, at 8–9 (emphasis added).

29. Anthropic PBC, Comment Letter on the U.S. Copyright Office's Notice of Inquiry on Artificial Intelligence and Copyright, at 9 (Oct. 30, 2023) (emphasis added) [hereinafter, Anthropic Comments], https://www.regulations.gov/comment/COLC-2023-0006-9021 [https://perma.cc/D9Z5-N822] [https://web.archive.org/web/20250120143216/https://www.regulations.gov/comment/COLC-2023-0006-9021].

30. Meta Platforms, Inc., Comment Letter on the U.S. Copyright Office's Notice of Inquiry on Artificial Intelligence and Copyright, at 4–5 (Dec. 6, 2023) (emphasis added) [hereinafter, Meta Comments], https://www.regulations.gov/comment/COLC-2023-0006-10332 [https://perma.cc/C485-C2ES] [https://web.archive.org/web/20250120143244/https://www.regulations.gov/comment/COLC-2023-0006-10332].

31. OpenAI Comments, *supra* note 20, at 13 (emphasis added).

32. *See, e.g.*, Metz et al., *supra* note 9.

33. *See* Newton-Rex, *supra* note 5 and accompanying text; Cade Metz, *Former OpenAI Researcher Says the Company Broke Copyright Law*, N.Y. TIMES (Oct. 23, 2024), https://www.nytimes.com/2024/10/23/technology/openai-copyright-law.html

Finally, it should be noted that failure to reach agreement with certain rightsholders will not be prejudicial to the development of any LLM. As Meta has observed:

> [N]umerous comments agreed that the quality of Generative AI models does not depend on the expressive elements of a particular piece of content, or the inclusion or exclusion of any individual piece of training data, but rather on the *quantity* and *diversity* of the training content as a whole. Training data, in other words, is highly substitutable: as long as the model's overall training corpus is large and diverse, the model will function just as effectively with or without any specific piece of content.[34]

Consistent with this observation on the lack of prejudice from the exclusion of particular works, in practice "OpenAI has worked closely with both music publishers (including through the [National Music Publishers' Association]) and book authors (including through the Authors Guild) to identify third-party sites that may contain infringing or unauthorized copies of their works, and has specifically excluded sites from being part of training data."[35]

C. BIG TECH CAN AFFORD THE LICENSING FEES FOR PROFESSIONALLY CREATED WORKS

Big Tech can clearly afford to pay reasonable license fees to the copyright owners whose works are the very building blocks of GAI and whose livelihoods are threatened by the same system.[36] GAI developers count among their investors some of the largest and most profitable technology companies and venture capitalist firms in the world, and the value of the technology is astronomical. In October 2024, OpenAI reached a

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[https://web.archive.org/web/20250208043720/https://www.nytimes.com/2024/10/23/technology/openai-copyright-law.html].

34. Meta Comments, *supra* note 30, at 3.

35. OpenAI, Reply Comment Letter on the U.S. Copyright Office's Notice of Inquiry on Artificial Intelligence and Copyright, at 11 (Dec. 6, 2023), https://www.regulations.gov/comment/COLC-2023-0006-10340 [https://perma.cc/G8NY-247S] [https://web.archive.org/web/20250208044150/https://www.regulations.gov/comment/COLC-2023-0006-10340].

36. Although ability to afford licenses is not relevant to the fourth statutory fair use factor, this Article posits nonetheless that affordability is not hindering licensing of professionally created works. *See* Copyright Alliance, Comment Letter on the U.S. Copyright Office's Notice of Inquiry on Artificial Intelligence and Copyright, at 87 (Oct. 30, 2023), https://www.regulations.gov/comment/COLC-2023-0006-8935 [https://perma.cc/PE8H-5JPY] [https://web.archive.org/web/20250208044618/https://www.regulations.gov/comment/COLC-2023-0006-8935]

> ("Notably, the fourth factor *does not require* courts to consider the economic impact of securing a license, but it does explicitly require them to consider the economic impact of *not* securing a license. The text of section 107(4) of the Copyright Act does not say anything about the potential impact to *the user or the user's market*. Instead, courts shall consider 'the effect of the use upon the potential market for or value *of the copyrighted work*.' This distinction is critical, and it is one that must be taken into account under any fair use analysis related to the unauthorize[d] ingestion of copyrighted works by AI developers.").

$157 billion valuation.[37] As of December 31, 2024, Microsoft's market capitalization exceeded $3.13 trillion,[38] Amazon's market capitalization exceeded $2.32 trillion,[39] Alphabet's market capitalization exceeded $2.32 trillion,[40] and Meta's market capitalization exceeded $1.48 trillion.[41]

Moreover, several Big Tech commentators have conceded that they could afford licenses for all copyrighted content used in training—above and beyond the professionally created works that are the focus of this Article.[42]

In other contexts, emerging technology companies repeatedly have said they could not afford licenses but have been proven wrong, with licensing and successful services prevailing.[43] The increasing number of agreements for training demonstrates that license rates and transaction costs do not make mutually agreeable licenses between

37. Cade Metz, *OpenAI Completes Deal that Values Company at $157 Billion*, N.Y. TIMES (Oct. 2, 2024), https://www.nytimes.com/2024/10/02/technology/openai-valuation-150-billion.html?smid=url-share [https://web.archive.org/web/20250123225753/https://www.nytimes.com/2024/10/02/technology/openai-valuation-150-billion.html?smid=url-share].

38. *Microsoft Corporation (MSFT) Statistics*, YAHOO FIN., https://finance.yahoo.com/quote/MSFT/key-statistics/ [https://web.archive.org/web/20250323123818/https://finance.yahoo.com/quote/MSFT/key-statistics/] (last visited Mar. 23, 2025).

39. *Amazon.com, Inc. (AMZN)* Statistics, YAHOO FIN., https://finance.yahoo.com/quote/AMZN/key-statistics/ [https://web.archive.org/web/20250323131010/https://finance.yahoo.com/quote/AMZN/key-statistics/] (last visited Mar. 23, 2025). Amazon has invested $8 billion USD in Anthropic. *See* Daniel Tencer, *Anthropic Lands Another $4BN Investment from Amazon, Amid Ongoing Copyright Battle with Universal, Concord and ABKCO*, MUSIC BUS. WORLDWIDE (Nov. 25, 2024), https://www.musicbusinessworldwide.com/anthropic-just-landed-another-4bn-investment-from-amazon-amid-its-ongoing-copyright-fight-with-universal-concord-and-abkco/ [https://perma.cc/N7QV-U5MN] [https://web.archive.org/web/20241127035502/https://www.musicbusinessworldwide.com/anthropic-just-landed-another-4bn-investment-from-amazon-amid-its-ongoing-copyright-fight-with-universal-concord-and-abkco/].

40. *Alphabet Inc. (GOOG) Statistics*, YAHOO FIN., https://finance.yahoo.com/quote/GOOG/key-statistics/ [https://web.archive.org/web/20250323131014/https://finance.yahoo.com/quote/GOOG/key-statistics/] (last visited Mar. 25, 2025).

41. *Meta Platforms, Inc. (META)* Statistics, YAHOO FIN., https://finance.yahoo.com/quote/META/key-statistics/ [https://web.archive.org/web/20250323131543/https://finance.yahoo.com/quote/META/key-statistics/] (last visited Mar. 25, 2025).

42. *See* Andreessen Horowitz Comments, *supra* note 13, at 8 ("A multi-billion-dollar company might be able to afford to license copyrighted training data, but smaller, more agile startups will be shut out of the development race entirely."); Anthropic Comments, *supra* note 29, at 10 ("Only the most highly resourced entities would be able to engage in costly and burdensome data licensing processes."). Although the essential point has been conceded, it is also worth noting that the supposed concerns of Big Tech about small startups are unconvincing and misleading. *See* Kevin Madigan, *Generative AI Licensing Isn't Just Possible, It's Essential*, COPYRIGHT ALL. (Nov. 21, 2024), https://copyrightalliance.org/generative-ai-licensing/ [https://perma.cc/RUA7-FJBM] [https://web.archive.org/web/20250123225921/https://copyrightalliance.org/generative-ai-licensing/].

43. Declaration of Michael D. Smith in Support of Plaintiffs' Motion for Preliminary Injunction, Concord Music Grp., Inc. v. Anthropic PBC, No. 24 Civ. 3811, ¶ 72 (N.D. Cal. Aug. 1, 2024) (citing, among other things, (i) internet radio (e.g., Pandora); (ii) social media platforms (e.g., YouTube and Instagram); and (iii) streaming media (e.g., Apple Music, Spotify, and Deezer)).

rightsholders and GAI developers impractical.[44] Inasmuch as copyrighted works are as integral to GAI technologies as they are to services like Netflix and Spotify, both of which license the works made available through their platforms, GAI developers are capable of doing the same, and publishers are willing to work with them to effect such licensing.

III. PUBLISHERS WELCOME ALL MARKET-BASED LICENSING OPTIONS FOR TRAINING LLMS WITH PUBLISHERS' WORKS

The marketplace for publishers' works is sufficiently flexible to accommodate licenses for training through both existing licensing practices and new licensing models based on the exclusive rights afforded by copyright law. For publishers, licensing is about marketplace innovation and competition. The drafters of the Copyright Act set forth the exclusive rights in broad terms "to ensure that copyright protection would encompass not only the breadth of technological uses known at the time of enactment, but also future technological uses."[45] Time and time again publishers have vindicated the drafters' intentions by adapting their licensing models to the technologies of the day. For example, publishers have innovated in parallel with the development of the internet and handheld devices by making books available in eBook and/or digital audiobook formats for lending, for a subscription term, or for purchase of a usage license. Professional and scholarly publishers have a multitude of licensing options for their journal databases, including licenses for text-and-data mining purposes that have existed for several years.[46]

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44. *See, e.g.*, Reply Declaration of Ed Newton-Rex in Support of Plaintiffs' Reply in Support of Motion for Preliminary Injunction, Concord Music Grp., Inc. v. Anthropic PBC, No. 24 Civ. 3811, ¶ 9 (N.D. Cal. Sept. 12, 2024).

45. Ass'n of Am. Publishers, Reply Comment Letter on the U.S. Copyright Office's Notice of Inquiry on Artificial Intelligence and Copyright, at 7–8 (Dec. 6, 2023), https://www.regulations.gov/comment/COLC-2023-0006-10298 [https://perma.cc/DR9K-PU28] [https://web.archive.org/web/20250208055757/https://www.regulations.gov/comment/COLC-2023-0006-10298] (citing H. COMM. ON THE JUDICIARY, 89TH CONG., SUPPLEMENTARY REGISTER'S REPORT ON THE GENERAL REVISION OF THE U.S. COPYRIGHT LAW 18 (Comm. Print 1965)).

46. *See, e.g.*, AAP Comments, *supra* note 7, at 5 n.9 and accompanying text (citing *Text & Data Mining*, ACS PUBL'NS, https://solutions.acs.org/solutions/text-and-data-mining [https://perma.cc/HCM5-LKCE] [https://web.archive.org/web/20250208060101/https://solutions.acs.org/solutions/text-and-data-mining/] (last visited Feb. 8, 2025); *Elsevier Text and Data Mining (TDM) License*, ELSEVIER, https://beta.elsevier.com/about/policies-and-standards/text-and-data-mining/license?trial=true [https://perma.cc/59S6-ZBJU] [https://web.archive.org/web/20250208060209/https://www.elsevier.com/about/policies-and-standards/text-and-data-mining/license?trial=true] (last visited Feb. 8, 2025); *Sage Journals Text and Data Mining License Agreement*, SAGE JS., https://journals.sagepub.com/page/policies/text-and-data-mining-license [https://web.archive.org/web/20250208060459/https://journals.sagepub.com/page/policies/text-and-data-mining-license] (last visited Feb. 8, 2025); *Text and Data Mining*, TAYLOR & FRANCIS, https://taylorandfrancis.com/our-policies/textanddatamining [https://perma.cc/6M8J-UPKX] [https://web.archive.org/web/20250208060624/https://taylorandfrancis.com/our-policies/textanddatamining/] (last visited Feb. 8, 2025); *Text and Data Mining*, WILEY, https://onlinelibrary.wiley.com/library-info/resources/text-and-datamining

While the latest technological advance, GAI, holds extraordinary potential to transform society, there is nothing extraordinary about the licensing marketplace for training GAI models on publishers' works. Publishers welcome all voluntary marketplace developments. Market-based licensing solutions are the superior tool for facilitating development of GAI systems while respecting and protecting the exclusive rights of authors and publishers. Fundamentally, authors and publishers should remain free to exercise their exclusive rights, to determine how and in what ways their works are to be used, and by whom, and to not exercise them if the circumstances and/or terms do not merit a deal. Publishers and GAI developers have the flexibility to decide whether direct licensing or voluntary collective licensing is best suited for the particular circumstances of any deal they wish to conclude.

Voluntary collective licensing has worked well for publishers in certain sectors for certain specific use cases, such as corporate licensing for certain uses of works of professional and scholarly publishers, and academic licensing for certain uses of works of educational publishers. For example, the Copyright Clearance Center ("CCC") offers non-exclusive voluntary collective licensing solutions that include the Annual Copyright License for Business,[47] Multinational Copyright License for Business,[48] Annual Copyright License for Higher Education,[49] Annual Copyright License for Curriculum & Instruction,[50] and Annual Copyright License for Student Assessments.[51] In July 2024, the CCC announced a new licensing option within its Annual Copyright

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[https://web.archive.org/web/20250211082002/https://onlinelibrary.wiley.com/library-info/resources/text-and-datamining] (last visited Feb. 11, 2025)).

47. *Annual Copyright License*, COPYRIGHT CLEARANCE CTR., https://www.copyright.com/solutions-annual-copyright-license/ [https://perma.cc/KNK8-ZSLT] [https://web.archive.org/web/20250123230115/https://www.copyright.com/web/20250123230115/https://www.copyright.com/solutions-annual-copyright-license/] (last visited Feb. 8, 2025).

48. *Multinational Copyright License*, COPYRIGHT CLEARANCE CTR., https://www.copyright.com/wp-content/uploads/2018/09/Product-Sheet-Multinational-License.pdf [https://perma.cc/EL9U-7DGH] [https://web.archive.org/web/20250123230153/https://www.copyright.com/wp-content/uploads/2018/09/Product-Sheet-Multinational-License.pdf] (last visited Feb. 8, 2025).

49. *Annual Copyright License for Higher Education*, COPYRIGHT CLEARANCE CTR., https://www.copyright.com/solutions-annual-copyright-license-higher-education/ [https://perma.cc/T9WQ-ZL4Z] [https://web.archive.org/web/20250123230137/https://www.copyright.com/web/20250123230137/https://www.copyright.com/solutions-annual-copyright-license-for-curriculum-instruction/] (last visited Feb. 8, 2025).

50. *Annual Copyright License for Curriculum & Instruction*, COPYRIGHT CLEARANCE CTR., https://www.copyright.com/solutions-annual-copyright-license-for-curriculum-instruction/ [https://perma.cc/5GWU-UKYU] [https://web.archive.org/web/20250123230137/https://www.copyright.com/web/20250123230137/https://www.copyright.com/solutions-annual-copyright-license-for-curriculum-instruction/] (last visited Feb. 8, 2025).

51. *Annual Copyright License for Student Assessments*, COPYRIGHT CLEARANCE CTR., https://www.copyright.com/solutions-annual-copyright-license-student-assessments/ [https://perma.cc/6PRH-5GL8] [https://web.archive.org/web/20250130021543/https://www.copyright.com/web/20250130021543/https://www.copyright.com/solutions-annual-copyright-license-student-assessments/] (last visited Jan. 29, 2025).

License that permits the internal use of copyrighted materials in AI systems—the first ever voluntary collective licensing solution for this use.[52]

Notwithstanding the foregoing, for most publishing houses and in most circumstances, their experience and preference is direct licensing. It is likely that in the majority of circumstances publishers will prefer direct licensing with GAI developers. Publicly available sources have reported that publishers, including DeGruyer Brill,[53] HarperCollins,[54] Informa (parent of Taylor & Francis),[55] Oxford University Press, and Wiley,[56] have each concluded one or more licensing deals. Outside of publishing, there have also been reported over forty other content licensing agreements with LLMs, including with Associated Press, The Atlantic, Axel Springer, Condé Nast, Dotdash Meredith, Financial Times, LA Times, Le Monde, News Corp., Prisa Media, Reddit, Reuters, Time, and Vox Media, plus the nearly 4,000 licensing agreements Dow Jones concluded.[57] Like licensing markets before it, the licensing marketplace for GAI is growing and developing.[58]

There are also startups such as Calliope Networks, Created by Humans, and Human Native AI that are seeking to facilitate licenses, particularly for smaller AI developers.[59] The Authors Guild, the nation's oldest and largest professional organization for

52. Press Release, *CCC Pioneers Collective Licensing Solution for Content Usage in Internal AI Systems*, COPYRIGHT CLEARANCE CTR. (July 16, 2024), https://www.copyright.com/media-press-releases/ccc-pioneers-collective-licensing-solution-for-content-usage-in-internal-ai-systems/ [https://perma.cc/B4S7-39UT] [https://web.archive.org/web/20250130022544/https://www.copyright.com/web/20250130022544/https://www.copyright.com/media-press-releases/ccc-pioneers-collective-licensing-solution-for-content-usage-in-internal-ai-systems/].

53. *See* PUBLISHERS ASS'N, *supra* note 16, at 24.

54. Ella Creamer, *HarperCollins To Allow Tech Firms To Use Its Books To Train AI Models*, GUARDIAN (Nov. 19, 2024), https://www.theguardian.com/books/2024/nov/19/harpercollins-tech-firms-books-train-ai-models-nonfiction-artificial-intelligence [https://perma.cc/E4PJ-UC4E] [https://web.archive.org/web/20250130023512/https://www.theguardian.com/books/2024/nov/19/harpercollins-tech-firms-books-train-ai-models-nonfiction-artificial-intelligence].

55. Press Release, *Market Update*, INFORMA PLC (May 8, 2024), https://www.informa.com/globalassets/documents/investor-relations/2024/informa-plc—-market-update.pdf [https://perma.cc/D2JP-YKN5] [https://web.archive.org/web/20250223154404/https://www.informa.com/globalassets/documents/investor-relations/2024/informa-plc%E2%80%94-market-update.pdf].

56. Heloise Wood, *Wiley and Oxford University Press Confirm AI Partnerships as Cambridge University Press Offers 'Opt-in'*, BOOKSELLER (Aug. 1, 2024), https://www.thebookseller.com/news/wiley-cambridge-university-press-and-oxford-university-press-confirm-ai-partnerships [https://perma.cc/ST7R-DD3F] [https://web.archive.org/web/20250130025539/https://www.thebookseller.com/news/wiley-cambridge-university-press-and-oxford-university-press-confirm-ai-partnerships].

57. *See* sources cited *supra* note 16; Deck, *supra* note 17.

58. Beyond LLMs, there have also been many publicly reported licensing agreements for images, music, and/or video for GAI models.

59. CALLIOPE NETWORKS, https://calliopenetworks.ai/ [https://perma.cc/S6LP-5TC9] [https://web.archive.org/web/20250124101832/https://calliopenetworks.ai/] (last visited Jan. 29, 2025); CREATED BY HUMANS, https://www.createdbyhumans.ai/ [https://perma.cc/3XF5-GM7B] [https://web.archive.org/web/20250130030651/https://www.createdbyhumans.ai/] (last visited Jan. 29, 2025); HUMAN NATIVE AI, https://www.humannative.ai/ [https://perma.cc/NQZ2-X78M] [https://web.archive.org/web/20250130031112/https://www.humannative.ai/] (last visited Jan. 29, 2025).

published writers, announced an official partnership with Created by Humans in October 2024.[60] Whether through one of these models or a different voluntary licensing model, publishers will innovate and compete to serve smaller AI developers too.

IV. MARKET-BASED LICENSING FOR PUBLISHERS' WORKS BEST SERVES THE PUBLIC INTEREST

Market-based licensing for publishers' works best serves the public interest, benefiting all stakeholders, including the GAI developer, downstream users, authors, publishers, and the general public:

Rights Certainty. Publishers, authors, GAI developers, and the downstream users of GAI technologies can have certainty with respect to rights and obligations, including how copyrighted works can be used to train GAI systems and be incorporated in outputs.

Sustaining America's Political, Intellectual, and Cultural Systems Through New Works. Market-rate licensing fees are an important source of income for U.S. authors and publishers, and best promote their investment in new, high-quality, human-created works that will sustain the nation's political, intellectual, and cultural systems, ultimately benefiting the public.[61]

Better Performing LLMs. Payment of market-rate licensing fees by GAI developers is also in the long-term interest of GAI developers, downstream users, and the general public because the new, high-quality, human-created works that licensing fees support will fuel higher quality performance from future LLMs on a continuing, ongoing basis.[62]

Higher AI Reliability. Publications licensed from authorized sources are more reliable. For example, in the case of professional and scholarly journal articles, it is important for any AI system to use the Version of Record ("VoR") with appropriate licensing. Earlier versions or pirated versions may be subject to post publication modification or retraction, which could create serious and cascading scientific or medical errors in AI generated outputs.[63] All stakeholders in the AI ecosystem benefit.

High Human Risk Demands Highest Quality. Since AI technologies are being and will be used in ways that impact the lives and well-being of individuals, whether financially, physically, mentally, or professionally, it is critically important that the highest quality textual works are used to create current and future training sets.[64]

60. Press Release, *Authors Guild Partners with Created by Humans To Empower Authors in the AI Era*, AUTHORS GUILD (Oct. 9, 2024), https://authorsguild.org/news/ag-partners-with-created-by-humans-to-empower-authors-in-ai-era/ [https://perma.cc/8SCC-SZLS] [https://web.archive.org/web/20250130031429/https://authorsguild.org/news/ag-partners-with-created-by-humans-to-empower-authors-in-ai-era/].

61. AAP Comments, *supra* note 7, at 27.

62. *See id.*

63. *Id.* at 27–28.

64. *Id.* at 28.

V. PUBLISHERS STRONGLY OPPOSE THE INTRODUCTION OF A COMPULSORY LICENSING REGIME OR EXTENDED COLLECTIVE LICENSING REGIME AS RELATED TO PUBLISHERS' WORKS

Publishers strongly oppose the introduction of a compulsory licensing regime or extended collective licensing to redress unauthorized uses of publishers' works to train GAI systems. As AAP stated in its comments to the U.S. Copyright Office in response to its Copyright and AI Study:

> The Copyright Office has correctly observed, "Compulsory licensing has been, and should be, regarded as an extreme last resort in copyright law," and it has held this view firmly for decades. Congress shares this view, recognizing that compulsory licenses fly in the face of the exclusive rights of authors, and it has enacted compulsory licenses reluctantly, sparingly, and narrowly—and only after clear and demonstrated need."[65]

It further observed that "[b]ecause extended collective licensing also acts in derogation of the exclusive rights of copyright owners, it raises many of the same concerns as compulsory licensing. As with compulsory licensing, extended collective licensing is not currently needed or justified."[66]

Fundamentally, authors and publishers should remain free to exercise their exclusive rights, to determine how and in what ways their works are to be used, and by whom. There has also been no market failure with respect to publishers' works that would necessitate such an "extreme last resort" as compulsory licensing or would otherwise necessitate extended collective licensing.[67] To the contrary, licensing publishers' works is eminently feasible for the reasons explained in this Article.

VI. CONCLUSION

Publishers welcome market-based licensing solutions for facilitating development of GAI systems because they benefit all stakeholders, they are undoubtedly feasible, and

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65. *Id.* at 25 (internal citations omitted).

66. *Id.* at 26.

67. *Id.* at 25 (quoting U.S. COPYRIGHT OFF., SECOND SUPPLEMENTARY REGISTER'S REPORT ON THE GENERAL REVISION OF THE U.S. COPYRIGHT LAW 60 (1975) https://ipmall.law.unh.edu/sites/default/files/hosted_resources/lipa/copyrights/Second%20Supplementary%20Register's%20Report%20on%20the%20General%20Revision.pdf [https://web.archive.org/web/20240725150851/https://ipmall.law.unh.edu/sites/default/files/hosted_resources/lipa/copyrights/Second%20Supplementary%20Register's%20Report%20on%20the%20General%20Revision.pdf]). Extended collective licensing also "presupposes the existence of a voluntary license between relevant parties representing a substantial majority of both licensors and licensees for a specifically-described, licensable use that, for explicit reasons, is unable to encompass all necessary works of potential-but-absent licensors." *See* Copyright Clearance Center, Comment Letter on the U.S. Copyright Office's Notice of Inquiry on Artificial Intelligence and Copyright, at 13 (Oct. 30, 2023), https://www.regulations.gov/comment/COLC-2023-0006-8601 [https://perma.cc/SPD4-2YUS] [https://web.archive.org/web/20250130031930/https://www.regulations.gov/comment/COLC-2023-0006-8601]. These circumstances do not exist in the market for publishers' works at the timing of writing and do not appear likely to exist in the future.

they will help ensure that publishers and authors may continue to make their vital contributions to society. The licensing market is rapidly growing, and but for the utter disregard towards the rights of copyright owners by LLM developers hiding behind the assertion of fair use, it would be even larger. Whether the non-professionally created copyright works that comprise the vast majority of content on the internet present unique challenges for market-based licensing is an issue on which this Article takes no opinion but to note that it merits further study. Instead, this Article concludes that the works of professional content creators like publishers, the professional news media, and others clearly are among those that must be subject to market-based licensing for LLM training and use. The number of licenses is manageable, and Big Tech can afford them. Big Tech would seem to agree.

Licensing of Text for Generative AI: Learnings from Non-AI Licensing Practices

*Regan Smith**

INTRODUCTION

Licensing developments for generative Artificial Intelligence ("AI") Large Language Models ("LLMs") are moving fast, fueled by developer demand for access to, and the ability to use, increasing amounts of high-quality textual data.[1] With this constant demand for quality literary works come questions around how licensing practices can enable technological developments while preserving the contours of copyright law and sufficiently incentivizing human authorship of books, journalism, and other literary content for human readers and AI uses alike.

While some venture that licensing for generative AI purposes is "impossible," many companies have negotiated partnerships with media publishers or publishing houses for generative AI uses.[2] Meanwhile, others query whether there is a need to build or adjust licensing systems to better facilitate licensing of textual content, whether through regulatory updates, increased use of collecting societies, or augmenting data management infrastructure.

Before declaring the status quo of marketplace licensing insufficient, it makes sense to take stock of where we have been, where we are, and where we might be going. This short piece hypothesizes that some current bumps in generative AI licensing stem from uncertainty in an emerging market, not inherent difficulties in licensing at scale for

* SVP and General Counsel, News/Media Alliance. The views expressed are her own and not necessarily those of her employer. Thank you to Johannes Munter for his research assistance and review.

1. *See* Paul Sweeting, *Generative AI & Licensing: A Special Report*, VARIETY (Oct. 1, 2024), https://variety.com/vip-special-reports/generative-ai-content-licensing-special-report-1236157051/ [https://perma.cc/Z5B8-8VM9] [https://web.archive.org/web/20250223224314/https://variety.com/vip-special-reports/generative-ai-content-licensing-special-report-1236157051/].

2. Dan Milmo, *'Impossible' To Create AI Tools Like ChatGPT Without Copyrighted Material, OpenAI Says*, GUARDIAN (Jan. 8, 2024), https://www.theguardian.com/technology/2024/jan/08/ai-tools-chatgpt-copyrighted-material-openai [https://perma.cc/3T9F-XUEY] [https://web.archive.org/web/20250122113600/https://www.theguardian.com/technology/2024/jan/08/ai-tools-chatgpt-copyrighted-material-openai].

professionally published content. Given that generative AI is still in its nascency, content licensing is not close to a one-size-fits-all standard. The time is ripe for marketplace developments, and experimentation in private arrangements between rightsholders and users. The Article also provides a brief primer in copyright principles of licensing regulation and overviews guideposts for collective management of content, based on experiences outside of AI. While voluntary collective licensing can play a valuable role in the AI licensing market, these guideposts may assist authors and other licensees as they consider whether, with whom, and on what terms to affiliate with a licensing intermediary.

I. LICENSING FOR LLMS IS A RAPIDLY EMERGING SPACE

Despite over three dozen copyright litigations currently testing the boundaries of fair use for AI uses, significant licensing activity is already taking place. In the past two years, there have been reports of hundreds of deals struck between AI developers and rightsholders.[3] In addition, several startups have launched services to support the

3. *See, e.g.*, Trishla Ostwal, *Dow Jones Wins AI Licensing Deals with More Than 4,000 News Outlets Like the AP*, ADWEEK (Nov. 12, 2024), https://www.adweek.com/media/dow-jones-lands-more-than-4000-ai-licensing-deals-with-news-outlets-like-the-ap/ [https://perma.cc/DRG3-48XU] [https://web.archive.org/web/20250223223554/https://www.adweek.com/media/dow-jones-lands-more-than-4000-ai-licensing-deals-with-news-outlets-like-the-ap/]; Ella Creamer, *HarperCollins To Allow Tech Firms To Use Its Books To Train AI Models*, GUARDIAN (Nov. 19, 2024), https://www.theguardian.com/books/2024/nov/19/harpercollins-tech-firms-books-train-ai-models-nonfiction-artificial-intelligence [https://perma.cc/F8DY-9ZXL] [https://web.archive.org/web/20250223223801/https://www.theguardian.com/books/2024/nov/19/harpercollins-tech-firms-books-train-ai-models-nonfiction-artificial-intelligence]; Matilda Battersby, *Wiley Confirms It Is Seeking Further Generative AI Partnerships as Its Quarterly Revenue Rises To £296m*, BOOKSELLER (Sept. 6, 2024), https://www.thebookseller.com/news/wiley-confirms-it-is-seeking-further-generative-ai-partnerships-as-its-quarterly-revenue-rises-to-296m [https://perma.cc/87LJ-G7CH] [https://web.archive.org/web/20250121172941/https://www.thebookseller.com/news/wiley-confirms-it-is-seeking-further-generative-ai-partnerships-as-its-quarterly-revenue-rises-to-296m]; Kyle Wiggers, *Perplexity Expands Its Publisher Program*, TECHCRUNCH (Dec. 5, 2024), https://techcrunch.com/2024/12/05/perplexity-expands-its-publisher-program/ [https://perma.cc/8LTZ-S9SQ] [https://web.archive.org/web/20250121173549/https://techcrunch.com/2024/12/05/perplexity-expands-its-publisher-program/]; Emma Roth, *Microsoft Is the Mystery AI Company Licensing HarperCollins Books, Says Bloomberg*, VERGE (Nov. 19, 2024), https://www.theverge.com/2024/11/19/24300893/microsoft-ai-training-deal-harpercollins-report [https://perma.cc/W5ZT-8END] [https://web.archive.org/web/20250121174437/https://www.theverge.com/2024/11/19/24300893/microsoft-ai-training-deal-harpercollins-report]; Sara Fischer, *Scoop: Meta Strikes Multi-Year AI Deal with Reuters*, AXIOS (Oct. 25, 2024), https://www.axios.com/2024/10/25/meta-reuters-ai-news-facebook-instagram [https://web.archive.org/web/20250218041601/https://www.axios.com/2024/10/25/meta-reuters-ai-news-facebook-instagram]; Guardian Staff and Agencies, *OpenAI Signs Multi-Year Content Partnership with Condé Nast*, GUARDIAN (Aug. 20, 2024), https://www.theguardian.com/technology/article/2024/aug/20/conde-nast-open-ai-deal [https://perma.cc/8XUN-CGG4] [https://web.archive.org/web/20250121175126/https://www.theguardian.com/technology/article/2024/aug/20/conde-nast-open-ai-deal]; Sara Fischer, *Exclusive: The Atlantic, Vox Media Ink Licensing, Product Deals with OpenAI*, AXIOS (May 29, 2024), https://www.axios.com/2024/05/29/atlantic-vox-media-openai-licensing-deal [https://web.archive.org/web/20250129002733/https://www.axios.com/2024/05/29/atlantic-vox-media-

infrastructure needed for different aspects of these transactions.[4] Considering these developments, one would be hard-pressed to say that marketplace licensing is impossible.

Indeed, marketplace arrangements are taking off even amidst rapid experimentation around how generative AI offerings may use publisher content. Generally, content licensing requires reaching a shared understanding regarding what content is desired and how it will be used so that the parties can agree on fair terms and conditions.[5] For generative AI, licensing discussions raise product questions regarding how the developer intends to use its model or the content it is interested in accessing and licensing. Many publishers operate robust licensing and partnership arms, regularly handling requests for reprints, excerpts, derivative works, etc., and identifying the expected uses of their content by an AI developer—including outputs or deployments of LLMs—can help compare those uses with other, existing revenue streams. Meanwhile, facing an emerging and competitive field, AI developers may be reluctant to commit to strict limits on the use of copyrighted materials, and some may attempt to hedge around legal questions by purporting to license only the "access to" works. A

openai-licensing-deal]; Kyle Orland, *Reddit Cashes In on AI Gold Rush with $203M in LLM Training License Fees*, ARS TECHNICA (Feb. 23, 2024), https://arstechnica.com/ai/2024/02/reddit-has-already-booked-203m-in-revenue-licensing-data-for-ai-training/ [https://web.archive.org/web/20250121175555/https://arstechnica.com/ai/2024/02/reddit-has-already-booked-203m-in-revenue-licensing-data-for-ai-training/]; Angela Cullen & Jackie Davalos, *OpenAI To Pay Axel Springer Tens of Millions To Use News Content*, BLOOMBERG (Dec. 13, 2023), https://www.bloomberg.com/news/articles/2023-12-13/openai-axel-springer-ink-deal-to-use-news-content-in-chatgpt [https://perma.cc/CT43-FE8D] [https://web.archive.org/web/20250121175820/https://www.bloomberg.com/news/articles/2023-12-13/openai-axel-springer-ink-deal-to-use-news-content-in-chatgpt].

4. *See, e.g.*, CREATED BY HUMANS, https://www.createdbyhumans.ai/ [https://perma.cc/JHU4-PHNM] [https://web.archive.org/web/20250130030651/https://www.createdbyhumans.ai/] (last visited Jan. 21, 2025) ("AI Rights licensing platform for books"); TOLLBIT, https://tollbit.com/ [https://perma.cc/H4EM-R64J] [https://web.archive.org/web/20250122001551/https://tollbit.com/] (last visited Jan. 21, 2025) (showing a service that offers analytics, bot paywall, and content licensing solutions); DAPPIER, https://dappier.com/ [https://perma.cc/C2WK-A8N4] [https://web.archive.org/web/20250130143904/https://dappier.com/] (last visited Jan. 21, 2025) (allowing publishers to create and monetize AI agents through a marketplace); PRORATA.AI, https://www.prorata.ai/ [https://web.archive.org/web/20250125095155/https://www.prorata.ai/] (last visited Jan. 21, 2025) (providing an AI search engine based exclusively on licensed data, using an algorithmic solution to distribute payments based on usage); HUMAN NATIVE AI, https://www.humannative.ai/ [https://perma.cc/7ESE-BJ3Y] [https://web.archive.org/web/20250122062925/https://www.humannative.ai/] (last visited Jan. 21, 2025) (providing a two-sided marketplace for publishers and AI developers); SCALEPOST, https://www.scalepost.ai/ [https://perma.cc/3SWT-2R64] (last visited Jan. 21, 2025) (providing a marketplace for developers and publishers); CALLIOPE NETWORKS, https://calliopenetworks.ai/ [https://perma.cc/VUU9-JD6C] [https://web.archive.org/web/20250130030315/https://calliopenetworks.ai/] (last visited Jan. 21, 2025) (aggregating and licensing textual and audiovisual content to AI developers on a revenue-share basis).

5. *See What Is Content Licensing?: The Ultimate Guide*, N.Y. TIMES, https://nytlicensing.com/latest/our-brand/what-is-content-licensing/ [https://perma.cc/7HYW-236F] [https://web.archive.org/web/20250121183053/https://nytlicensing.com/latest/our-brand/what-is-content-licensing/] (last visited Jan. 6, 2025) (describing discussions in licensing agreements, "such as which pieces of content, type of usage, platforms, length of time, etc.").

recent skim of openai.com advertises multiple uses for ChatGPT, ranging from "reducing health insurance costs and improving patient care" by insurers to ChatGPT search, which "blends the benefits of a natural language interface with the value of up-to-date sports scores, news, stock quotes, and more."[6] It is therefore perhaps not a coincidence that early partnership announcements spoke in general terms, such as using publisher content to "develop . . . generative AI models,"[7] or to "share access to select news content and technology."[8]

II. REGULATORY PRINCIPLES URGE CAUTION IN USURPING PRIVATE ARRANGEMENTS BETWEEN RIGHTSHOLDERS AND USERS

Discussions on licensing content at "scale" have been ongoing since well before the passage of the 1976 Copyright Act, which was the same time as the Copyright Clearance Center opened its doors to facilitate large scale licensing for reprographic works. Almost fifty years later, there are several models for aggregated licensing of copyrighted works across different industries for various uses, including recorded music, music publishing, fine and graphic arts, photography, news media, journals, books, and motion pictures. Aggregated licensing takes a variety of forms, including through licensing or administration agents, collective management organizations (e.g., performance rights organizations and other member-based licensing organizations), syndicates, co-operatives, special purpose joint ventures, click-wrap licenses (both inbound and outbound), extended collective licenses, and, in the U.S., a discrete set of statutory licenses for limited audio and video uses.

Most are voluntary participation models that naturally emerged in response to market dynamics. The United States presumption is for marketplace licensing, with the government stepping in to override private contracting only in very rare conditions. As former Register of Copyrights Marybeth Peters explained in 2004, a compulsory license is a "last resort" mechanism,[9] because by its nature, it "limits an author's bargaining power. It deprives the author of determining with whom and on what terms

6. *Oscar*, OPENAI, https://openai.com/index/oscar/ [https://web.archive.org/web/20250213133338/https://openai.com/index/oscar/] (last visited Jan. 6, 2025); *Introducing ChatGPT Search*, OPENAI (Oct. 31, 2024), https://openai.com/index/introducing-chatgpt-search/ [https://web.archive.org/web/20250128224727/https://openai.com/index/introducing-chatgpt-search/] (last visited Jan. 6, 2025).

7. Rick Merritt, *Moving Pictures: NVIDIA, Getty Images Collaborate on Generative AI*, NVIDIA BLOG (Mar. 21, 2023), https://blogs.nvidia.com/blog/generative-ai-getty-images/ [https://perma.cc/N4VC-KMG6] [https://web.archive.org/web/20250121235140/https://blogs.nvidia.com/blog/generative-ai-getty-images/].

8. Sara Fischer, *Exclusive: AP Strikes News-Sharing and Tech Deal with OpenAI*, AXIOS (July 13, 2023), https://www.axios.com/2023/07/13/ap-openai-news-sharing-tech-deal [https://web.archive.org/web/20250118003213/https://www.axios.com/2023/07/13/ap-openai-news-sharing-tech-deal].

9. *Section 115 of the Copyright Act: In Need of an Update?: Hearing Before the Subcomm. on Courts, the Internet, and Intellectual Property of the H. Comm. on the Judiciary*, 108th Cong. 27 (2004) (statement of Marybeth Peters, Register of Copyrights, U.S. Copyright Office).

he wishes to do business."[10] For that reason, she explained that (at that time) the United States was one of only two countries with a compulsory license regulating musical works.[11] In 2005, Register Peters elaborated further:

> The Copyright Office has long taken the position that statutory licenses should be enacted only in exceptional cases, when the marketplace is incapable of working. One could argue that it is difficult to say that the marketplace is incapable of working . . . when the marketplace has never been given a chance to succeed.[12]

And, as the Copyright Office more recently explained when considering the now-discontinued cable satellite license, the presence of a regulated license can depress the development of business models that would otherwise emerge in the marketplace and add costs to administer a compulsory license upon the licensor and licensees.[13]

For similar reasons, from a copyright legal perspective, the marketplace appears fairly well-suited to address the different copying and uses for generative AI development and offerings. While generative AI's mass taking of copyrighted content has prompted some questions regarding whether licensing regulation could be helpful,[14] it remains early days. Imposing a government-mandated structure could ossify licensing parties, terms, and conditions (ranging from permitted services to remuneration) before the market can mature, meanwhile imposing intermediary administrative costs. In addition, as others noted,[15] many purported concerns regarding licensing solutions specifically relate to user-generated content, such as social media threads, user-generated uploads, consumer reviews, or blog posts, rather than professionally produced content by publishers. While it is important to be able to address those copyright interests, this short piece is focused primarily on publisher-produced, first-party content. Without diving into separate considerations for other content, it is safe to say that it would be unprecedented to require AI licensing to be a "one stop shop" or to allow concerns for licensing other types of content to override the rights of professional publishers of journalism and other literary works, who rely upon copyright to invest in the creation of new works.

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10. *Id.* at 20.

11. *Id.*

12. *Music Licensing Reform: Hearing Before the Subcomm. on Intellectual Property of the Comm. on the Judiciary*, 109th Cong. 13 (2005) (statement of Marybeth Peters, Register of Copyrights, U.S. Copyright Office).

13. *See* U.S. COPYRIGHT OFF., U.S COPYRIGHT OFFICE ANALYSIS AND RECOMMENDATIONS REGARDING THE SECTION 119 COMPULSORY LICENSE 4–5 (June 3, 2019), https://copyright.gov/laws/hearings/views-concerning-section-119-compulsory-license.pdf [https://perma.cc/3JWC-FGLR] [https://web.archive.org/web/20250124222807/https://copyright.gov/laws/hearings/views-concerning-section-119-compulsory-license.pdf].

14. Notice of Inquiry and Request for Comments on Artificial Intelligence and Copyright, 88 Fed. Reg. 59,942, 59,946 (Aug. 30, 2023) ("Are there any statutory or regulatory approaches that have been adopted or are under consideration in other countries that relate to copyright and AI that should be considered or avoided in the United States?").

15. *See* Matthew Stratton, *Market-Based Licensing for Publishers' Works Is Feasible. Big Tech Agrees*, 48 COLUM. J.L. & ARTS (forthcoming 2025).

III. COLLECTIVE MANAGEMENT ORGANIZATIONS (CMOS) OFFER A WAY TO AGGREGATE LICENSES, AND BOTH LICENSORS AND LICENSEES CAN CONSIDER ESTABLISHED CRITERIA WHEN EVALUATING CMO ROLES IN AI LICENSING

While not the only option to facilitate efficient, aggregated rights clearance, collective management is one solution for licensing mass quantities of copyrighted works for generative AI uses. With collective management, rightsholders are allowed—sometimes required—to administer their rights through a collective management organization, or CMO.[16] As the World Intellectual Property Organization ("WIPO") explains it, CMOs can assist the interest of both parties in cases where it is not practical to seek specific permission from each rightsholder for a use.[17] This section briefly outlines different types of CMOs and benchmarks for parties to consider when evaluating use of a given intermediary to facilitate licensing for generative AI uses.

Complementary to direct licensing, voluntary collective management can be a valuable option, where authors and other rightsholders choose whether or not to affiliate with a CMO, or even choose among CMOs, such as when choosing to affiliate with a performing rights organizations in the U.S.[18] As the Copyright Office explained, "[v]oluntary collective licensing does not require legislation."[19] By contrast, mandatory or compulsory collective management can operate as a limitation on rights interests. Rightsholders objecting to license terms, or how a CMO administers the license (such as its operations, royalty distribution, or governance issues) may find recourse avenues limited to filing a complaint with the collective or a supervising government agency.

Extended collective licensing ("ECL") is sometimes suggested as a hybrid approach, where a set of copyrighted works (including out-of-commerce and so-called orphan works) are presumed to be included in a license unless the rightsholders controlling those works opt out of the license. Because most CMOs operate with rightsholders as members, and act to represent the interests of their members, an ECL mandate allows the CMO to "extend" its representation to include nonmember works. U.S. copyright law does not include ECL, and when the Copyright Office previously studied the

16. *See Collective Management of Copyright and Related Rights*, WORLD INTELL. PROP. ORG., https://www.wipo.int/en/web/copyright/collective-management [https://perma.cc/99CR-8WU9] [https://web.archive.org/web/20250124225619/https://www.wipo.int/en/web/copyright/collective-management] (last visited Jan. 24, 2025).

17. *Id.*

18. The Copyright Clearance Center ("CCC") is an example of voluntary collective licensing in the U.S. *See About CCC*, COPYRIGHT CLEARANCE CTR., https://www.copyright.com/company-about/ [https://perma.cc/2PFS-6YUS] [https://web.archive.org/web/20250124225844/https://www.copyright.com/company-about/] (last visited Jan. 24, 2025); U.S. COPYRIGHT OFF., LEGAL ISSUES IN MASS DIGITIZATION: A PRELIMINARY ANALYSIS AND DISCUSSION DOCUMENT 32–34 (Oct. 31, 2011), https://www.copyright.gov/docs/massdigitization/USCOMassDigitization_October2011.pdf [https://perma.cc/NX5C-9ZG5] [https://web.archive.org/web/20250124230020/https://www.copyright.gov/docs/massdigitization/USCOMassDigitization_October2011.pdf].

19. U.S. COPYRIGHT OFF., *supra* note 18, at 33.

feasibility of a pilot program to facilitate certain mass digitization projects, it found a notable lack of stakeholder support and consensus.[20] Meanwhile, some European nations have limited ECL systems. The European Union Copyright Directive Article 12 provides that, where a CMO is operating within its mandates,[21] and it is "typically onerous and impractical" to obtain individual authorizations from rightsholders," a state may choose to extend that license to non-member rightsholders under certain conditions, including by requiring the CMO to be "sufficiently representative" of the relevant rightsholders, by guaranteeing "equal treatment" to all rightsholders, allowing rightsholders to "easily and effectively" opt out and implementing "appropriate publicity measures" to inform rightsholders of the extended nature of the CMO.[22]

While collective licensing can provide efficiency to the licensing parties, the addition of a CMO structure inherently adds a layer of operational complexity. CMOs bring a separate set of management issues to be considered to ensure the licensing agent is performing its desired role.[23] Further, by consolidating negotiations into a single entity, which must adequately represent a variety of members, there is less flexibility than with individual negotiations, which may be able to be more experimental. Over decades, these issues have been considered by various governments and nongovernmental organizations—such as the International Confederation of Societies of Authors and Composers ("CISAC"), a global association of 227 authors societies—and have been incorporated into various CMO governance documents. A few core themes may be useful to consider in connection with generative AI licensing, to evaluate a CMO against direct licenses or other aggregated licensing structure alternatives.

A. DISTRIBUTION

Any organization collecting and distributing royalties must have a strong ability to distribute those royalties fairly, transparently, and accurately.[24] CISAC's guidance provides that "[a CMO] shall . . . base its distributions on actual usage of Works or, if

20. *See* Letter from Karyn A. Temple, Acting Register of Copyrights and Director, U.S. Copyright Off., to Charles E. Grassley, Chairman, S. Judiciary Comm., and Dianne Feinstein, Sen., S. Judiciary Comm. (Sept. 29, 2017), https://www.copyright.gov/policy/massdigitization/senate-letter.pdf [https://perma.cc/NV3X-CYY8] [https://web.archive.org/web/20250124230500/https://www.copyright.gov/policy/massdigitization/senate-letter.pdf].

21. Although uncommon in the U.S., many nations may designate a CMO with a mandate to license a particular set of rights.

22. Directive 2019/790, of the European Parliament and of the Council of 17 April 2019 on Copyright and Related Rights in the Digital Single Market and Amending Directives 96/6/EC and 2001/29/EC, art. 12, 2019 O.J. (L 130).

23. *Cf.* WORLD INTELL. PROP. ORG., *supra* note 16.

24. *See* Directive 2014/26, of the European Parliament and of the Council of 26 February 2014 on Collective Management of Copyright and Related Rights and Multi-Territorial Licensing of Rights in Musical Works for Online Use in the Internal Market, art. 13(1), 2014 O.J. (L 84) ("[A] collective management organisation [shall] regularly, diligently and accurately distribute[] and pay[] amounts due to rightholders in accordance with the general policy on distribution referred to in point (a) of Article 8(5).").

not practicable, on the basis of a statistically valid sample of actual usage of Works or, in the case of reprography, on potential usage,"[25] and the International Federation of Reproduction Rights Organisations ("IFRRO")'s Code of Conduct echoes these principles by asking RROs to "distribute remuneration received to rightsholders; efficiently and expeditiously; approximating actual use as far as possible . . . ."[26] In some sectors, CMOs emerged to administer licenses where it is impractical to count the actual uses of the copyrighted work (such as live music performances). In other cases, including the U.S. compulsory license for digital music streaming, usage reported by licensees allows the collective to make distributions based on the actual use of copyrighted works.[27] For born-digital uses—including generative AI where training sets already copiously document which works were ingested for training, and technical tools are developing to track model calls to content used to "augment" LLM responses[28]—the starting presumption should be that distribution policies are based on, or closely approximate, actual usage.

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25. *See* CONFÉDÉRATION INTERNATIONALE DES SOCIÉTÉS D'AUTEURS ET COMPOSITEURS, PROFESSIONAL RULES FOR DRAMATIC, LITERARY AND AUDIOVISUAL SOCIETIES ¶ 18 (2019) https://members.cisac.org/CisacPortal/cisacDownloadFileSearch.do?docId=34448 [https://perma.cc/8M34-92WX] [https://web.archive.org/web/20250124232932/https://members.cisac.org/CisacPortal/cisacDownloadFileSearch.do?docId=34448].

26. *Code of Conduct*, INT'L FED'N REPROD. RTS. ORGS., § 5.1, https://ifrro.org/page/code-of-conduct/ [https://ifrro.org/page/code-of-conduct/ https://perma.cc/UU2U-EPNG] [https://web.archive.org/web/20250124193251/https://ifrro.org/page/code-of-conduct/] (last visited Jan. 24, 2025) [hereinafter, IFRRO CODE OF CONDUCT].

27. *See, e.g.*, 37 C.F.R. § 210.29 (2025); INT'L FED'N OF THE PHONOGRAPHIC INDUS., CODE OF CONDUCT FOR MUSIC INDUSTRY MUSIC LICENSING COMPANIES, § 5(2) (May 2021) [hereinafter, IFPI], https://www.ifpi.org/wp-content/uploads/2021/06/MLCs-Code-Of-Conduct-May-2021.pdf [https://perma.cc/CC3T-XELF] [https://web.archive.org/web/20240315155444/http://www.ifpi.org/wp-content/uploads/2021/06/MLCs-Code-Of-Conduct-May-2021.pdf].

28. *See, e.g.*, NEWS/MEDIA ALL., WHITE PAPER: HOW THE PERVASIVE COPYING OF EXPRESSIVE WORKS TO TRAIN AND FUEL GENERATIVE ARTIFICIAL INTELLIGENCE SYSTEMS IS COPYRIGHT INFRINGEMENT AND NOT A FAIR USE (2023), https://www.newsmediaalliance.org/wp-content/uploads/2023/10/AI-White-Paper-with-Technical-Analysis.pdf [https://perma.cc/BX7K-F46G] [https://web.archive.org/web/20250309195128/https://www.newsmediaalliance.org/wp-content/uploads/2023/10/AI-White-Paper-with-Technical-Analysis.pdf] (analyzing datasets used for AI training); GEORGE WUKOSON & JOEY FORTUNA, THE PREDOMINANT USE OF HIGH-AUTHORITY COMMERCIAL WEB PUBLISHER CONTENT TO TRAIN LEADING LLMS (2024), https://www.ziffdavis.com/wp-content/uploads/2024/11/The-Predominant-Use-of-High-Authority-Commercial-Web-Publisher-Content-to-Train-Leading-LLMs.pdf [https://perma.cc/KC4Y-DRVT] (reviewing publicly available datasets); *TollBit for RAG*, TOLLBIT, https://tollbit.com/ai/rag/ [https://perma.cc/QS36-MM49] [https://web.archive.org/web/20250124200834/https://tollbit.com/ai/rag/] (last visited Jan. 24, 2025) ("TollBit provides your business operations teams ledgers to track incoming ad revenue, and automate distributions to content and data partners."); *ProRata Announces Gist.ai, New AI Search Engine Based Entirely on High-Quality Licensed Content*, BUS. WIRE (Dec. 9, 2024), https://www.businesswire.com/news/home/20241209071998/en/ProRata-Announces-Gist.ai-New-AI-Search-Engine-Based-Entirely-on-High-Quality-Licensed-Content [https://web.archive.org/web/20250124201216/https://www.businesswire.com/news/home/20241209071998/en/ProRata-Announces-Gist.ai-New-AI-Search-Engine-Based-Entirely-on-High-Quality-Licensed-Content] ("ProRata employs a proprietary algorithmic process to score and determine multi-source content

B. REPRESENTATION DUTY

Most CMOs operate on a membership basis, representing authors, publishers, or other rightsholders who have affiliated with them. It is not uncommon for national or societal codes of conduct to require CMOs to act in the interest of their rightsholder members, and on a nondiscriminatory basis.[29]

C. ADMINISTRATIVE COSTS.

As new businesses emerge to help administer generative AI licensing at scale, it is important that entities operate efficiently and avoid layering unnecessary costs between the AI developers and creative rightsholders. As WIPO's *Good Practice Toolkit for CMOs* explains, "it should be a key objective for a CMO to provide high quality rights management services at the lowest possible cost, thus maximizing the Distributions to Rightholders."[30] This principle is echoed by others, including the Societies' Council for the Collective Management of Performers' Rights ("SCAPR"),[31] the association for performers' CMOs, and the IFRRO Code of Conduct.[32] Even CISAC, which navigates a broad membership across many nations and uses, has set a maximum floor for

attribution, enabling content owners to receive credit and compensation for their material on a per-use basis.").

29. *See, e.g.*, WORLD INTELL. PROP. ORG., WIPO GOOD PRACTICE TOOLKIT FOR COLLECTIVE MANAGEMENT ORGANIZATIONS (THE TOOLKIT): A BRIDGE BETWEEN RIGHTHOLDERS AND USERS 44 (2025) [hereinafter, WIPO TOOLKIT] ("CMOs shall accept rightholders as members if they fulfil the membership requirements which shall be based on objective, transparent and non-discriminatory criteria.") (quoting Code of Economic Law, Book XI, Title 5) (Belg.)); CODE OF CONDUCT FOR COPYRIGHT COLLECTING SOCIETIES § 2.2(a) at 4 (2022) (Austl.), https://www.copyrightcodeofconduct.org.au/code [https://perma.cc/TR6R-PZ8W] [https://web.archive.org/web/20250309200733/https://static1.squarespace.com/static/5c454daba2772c47f0dcd6ea/t/6285be6522bb0b2d9bfc7b29/1652932200304/Code_of_Conduct_May_2022.pdf] ("The membership of a Collecting Society will be open to all eligible creators of copyright material, and to anyone who owns or controls copyright material . . . in accordance with the Constitution of the Collecting Society."); IFPI, *supra* note 27, at 1 ("MLCs shall act in the best interests of all the right holders they represent, whether directly or via agreements with other MLCs. MLCs shall offer their services and conduct their operations in a fair, effective and non-discriminatory manner and in compliance with the applicable legislation.").

30. WIPO TOOLKIT, *supra* note 29, § 6.4.1. *See also* Directive 2014/26, *supra* note 24, art. 12(2) ("Deductions shall be reasonable in relation to the services provided by the collective management organisation to rightholders . . . ."); *id.* art. 12(3) ("Management fees shall not exceed the justified and documented costs incurred by the collective management organisation in managing copyright and related rights.").

31. THE SOCIETIES' COUNCIL FOR THE COLLECTIVE MGMT. OF PERFORMERS' RTS., CODE OF CONDUCT § 5 (May 2024) https://www.scapr.org/file/2024/09/SCAPR-Code-of-Conduct-approved-May-2024.pdf [https://perma.cc/9HHA-F4S8] [https://web.archive.org/web/20250309201838/https://www.scapr.org/file/2024/09/SCAPR-Code-of-Conduct-approved-May-2024.pdf] ("The performers shall pay only the costs which are objectively necessary for the protection of their rights and interests and for the effective management of their rights.").

32. RROs must inform rightsholders of administrative deductions, which must be "proper and reasonable and in proportion to their actual efforts and services delivered" and administration must be designed "so as to minimize total administrative costs that are being deducted." IFFRO CODE OF CONDUCT, *supra* note 26, §§ 1.1.7, 5.3.

administrative costs of 30%; according to a questionnaire of the Asia-Pacific Economic Cooperation ("APEC"), CMOs reported "significant variation . . . in management fee[s], which ranged from 5% to 30%."[33]

In the relatively well developed U.S. music market, administrative rates are much lower than 30%, particularly for digital uses where licensees transfer data to help the CMO administer the license and distribute royalties.[34] For example, in 2023 the Mechanical Licensing Collective ("MLC"), which administers streaming mechanical rights, reported an administrative fee of 3.07%;[35] SoundExchange, which administers certain sound recording performance licenses, reported a range of 4–6% in administrative rates;[36] and the American Society of Composers, Authors and Publishers ("ASCAP") takes "10% for operating expenses and pay[s] the rest[] as royalties."[37] Finally, while most CMOs deduct an administration fee from royalties otherwise payable to rightsholders, the MLC is unique in that the *licensees* are obligated by statute to bear its administrative costs. Regardless of who assumes the costs, it remains critical that a CMO have sufficient incentives and tools of governance to ensure that it operates with robust efficiency.

In the emergent market for generative AI licenses, some startups are rumored to request take rates ranging from 25–50%. Those initiatives may—or may not—perform distribution delivery or data normalization and processing roles (such as attribution technologies) beyond those of traditional CMOs to support a higher administrative fee. Continued evaluation and scrutiny in potential licensing partners is appropriate to

33. *How Do Authors' Societies Work?*, CONFÉDÉRATION INTERNATIONALE DES SOCIÉTÉS D'AUTEURS ET COMPOSITEURS, https://members.cisac.org/CisacPortal/page.do?id=50 [https://perma.cc/3W7P-LBHL] [https://web.archive.org/web/20250124202324/https://members.cisac.org/CisacPortal/page.do?id=50] (last visited Jan. 24, 2025); ASIA-PAC. ECON. COOP., GUIDELINES ON THE BEST LICENSING PRACTICES OF COLLECTIVE MANAGEMENT ORGANIZATIONS (CMOS) TO MSMES 36 (2019).

34. Note, the U.S. is the largest geographical market for all CMO uses, and music is the largest type of use for collective management globally. *See CISAC Collections Grew by 7.6% To a Record High of €13.1 Billion in 2023, Boosted by a 9.6% Rise in Digital Revenues To €4.6 Billion*, CREATIVE INDUS. NEWSL. (Oct. 24, 2024), https://creativeindustriesnews.com/2024/10/cisac-collections-grew-by-7-6-to-a-record-high-of-e13-1-billion-in-2023-boosted-by-a-9-6-rise-in-digital-revenues-to-e4-6-billion/ [https://perma.cc/RCA3-F73S].

35. THE MECHANICAL LICENSING COLLECTIVE, INITIAL SUBMISSION OF THE MECHANICAL LICENSING COLLECTIVE (THE MLC) 35 (2024), https://www.copyright.gov/rulemaking/mma-designations/2024/initial-submissions/mlc-initial-submission-2024.pdf [https://perma.cc/6D4S-DGYH] [https://web.archive.org/web/20250309233626/https://www.copyright.gov/rulemaking/mma-designations/2024/initial-submissions/mlc-initial-submission-2024.pdf].

36. *Frequently Asked Questions*, SOUNDEXCHANGE, https://www.soundexchange.com/frequently-asked-questions [https://perma.cc/GM7C-QGJS] [https://web.archive.org/web/20240922235237/https://www.soundexchange.com/frequently-asked-questions/] (last visited Jan. 24, 2025) ("SoundExchange pays royalties directly to music creators, offering monthly payments at one of the lowest administrative rates in the music industry (between 4–6%) and paying out most royalties within 45 days of receipt.").

37. Todd Longwell & Geoff Mayfield, *Variety's 2024 Music Legal Elite Report Covers Top Attorneys Who Rock Showbiz*, VARIETY (Oct. 9, 2024), https://variety.com/lists/music-legal-elite-report/clara-kim-4/ [https://perma.cc/P8A5-9YV7]
[https://web.archive.org/web/20250222075605/https://variety.com/lists/music-legal-elite-report/clara-kim-4/] (profiling ASCAP executive, who also noted "the others take a minimum of 15%").

ensure that intermediaries develop in a supportive fashion that reduces, rather than compounds, licensing inefficiencies and costs.

D. TRANSPARENCY.

Collecting societies have a duty of transparency to their members, to ensure the responsible discharge of representation, distribution, efficiency, and operational obligations. Transparency is especially important where participation is compelled, but it remains important even where members can choose whether or not to affiliate with a given CMO. As the head of the U.S. music publishers association recently said regarding music PROs, "I believe that you have a fundamental right to know what it costs you to use a particular collection society," and the U.S. Copyright Office was recently asked to study, *inter alia*, "the level of information currently provided by PROs to the public."[38] Along with periodic statements and educational material, a CMO's annual report is intended to function as an important tool of transparency, and various governments and bodies have looked to specify the content of these reports and other disclosure requirements.[39] For the same reason, audit rights can be important tools, and may be negotiated for or required by regulation.[40]

E. OTHER OPERATIONAL CONSIDERATIONS.

At a basic level, a licensing agent or collecting society needs the operational acumen to perform its function accurately and efficiently, and data management is a paramount obligation. While the manifold operational considerations involved in collective management for LLM licensing are beyond the scope of this article, it is worth noting

38. Ashley King, *House Judiciary Committee Demands Greater Transparency from ASCAP, BMI, Other PROs*, DIGIT. MUSIC NEWS (Sept. 13, 2024), https://www.digitalmusicnews.com/2024/09/13/house-judiciary-committee-pros/ [https://perma.cc/W4E4-E5WM] [https://web.archive.org/web/20250309234003/https://www.digitalmusicnews.com/2024/09/13/house-judiciary-committee-pros/]; Letter from Reps. Jim Jordan, Chairman, H. Judiciary Comm., et al., to Shira Perlmutter, Register of Copyrights (Sept. 11, 2024), https://thetrichordist.com/wp-content/uploads/2024/09/mic-coalition-letter-to-co-re-gmr.pdf [https://perma.cc/4C2D-668X] [https://web.archive.org/web/20250126174009/https://thetrichordist.com/wp-content/uploads/2024/09/mic-coalition-letter-to-co-re-gmr.pdf] (asking the Copyright Office to study the operational aspects of various U.S. PROs).

39. *See, e.g.*, Directive 2014/26, *supra* note 26, art. 21 (requiring membership terms, licensing contracts, tariffs, discounts, distribution policies, management fees, revenue deductions, representation agreements, and dispute procedures to be made public); CONFÉDÉRATION INTERNATIONALE DES SOCIÉTÉS D'AUTEURS ET COMPOSITEURS, PROFESSIONAL RULES FOR MUSICAL SOCIETIES § 11 (2018) (outlining annual report requirements including requirement to detail revenue, expenses, and distribution criterion); WIPO TOOLKIT, *supra* note 29, at 21 ("A collective society . . . must answer within a reasonable time all reasonable requests from the public for information about its repertoire of works, performer's performances, sound recordings or communication signals.") (quoting Copyright Act, R.S.C. 1985, c C-42, art. 70(11) (as amended up to June 22, 2016) (Can.)); BRITISH COPYRIGHT COUNCIL, PRINCIPLES OF GOOD PRACTICE FOR COLLECTIVE MANAGEMENT ORGANISATIONS—POLICY FRAMEWORK 34 (2011) (outlining multiple transparency practices).

40. *See* 17 U.S.C. § 115 (d)(3)(L).

the importance of well-functioning operations when considering whether to encourage or even obligate the use of a CMO. The EU requires that CMOs have "sufficient capacity to process electronically, in an efficient and transparent manner, data needed for the administration of such licences, including for the purposes of identifying the repertoire and monitoring its use, invoicing users, collecting rights revenue and distributing amounts due to rightholders."[41] The speed at which a CMO can process usage and issue payments is important for members depending on distribution income and can vary widely, ranging from seventy-five days to nine months or even years.[42] In many sectors, the use of standard identifiers and metadata requirements accompanies licenses for digital works, and already efforts are underway to shore up metadata relevant to uses of copyrighted works for generative AI purposes.[43]

IV. CONCLUSION

The explosion of generative AI technologies provides challenges and opportunities for publishers and developers to partner and experiment with licensed uses of literary content. As we peer past the cusp of early licensing announcements, it is helpful to look to copyright principles, and current licensing practices for non-AI uses, and to encourage the private marketplace to evolve and iterate in beneficial ways. History suggests we are unlikely to find, or need, a one-size-fits-all solution, given the immense amount of content and variegated uses in the mix. Instead, AI developers, like other businesses that depend on copyrighted content, may require scaling up business and compliance functions to effectuate transactions and mitigate risk.

Following established copyright law, a principle of conservatism should be applied to allow market solutions to blossom before considering whether persistent licensing gaps remain or any adjustment is needed. While collective licensing, on a voluntary basis, may be helpful to facilitate generative AI licensing, mandatory collective

41. Directive 2014/26, *supra* note 24, art. 24.

42. *See What Is the Payment Timeline?*, MECH. LICENSING COLLECTIVE, https://help.themlc.com/en/support/what-is-the-payment-timeline [https://perma.cc/78W4-PBFV] [https://web.archive.org/web/20250225064437/https://help.themlc.com/en/support/what-is-the-payment-timeline] (last visited Jan. 26, 2025) ("The MLC will issue monthly royalty statements approximately 75 days following the end of each calendar month."); European Commission Memorandum 14/79, Directive on Collective Management of Copyright and Related Rights and Multi-Territorial Licensing—Frequently Asked Questions, at 8 (Feb. 4, 2014), https://ec.europa.eu/commission/presscorner/api/files/document/print/en/memo_14_79/MEMO_14_79_EN.pdf [https://perma.cc/QSG6-GARJ] [https://web.archive.org/web/20250126183028/https://ec.europa.eu/commission/presscorner/api/files/document/print/en/memo_14_79/MEMO_14_79_EN.pdf] ("[C]ollective management organisations should regularly and diligently pay royalties to rightholders—no later than nine months . . . .").

43. *See, e.g.*, COAL. FOR CONTENT PROVENANCE & AUTHENTICITY, https://c2pa.org/ [https://perma.cc/98CG-8SRS] [https://web.archive.org/web/20250305102122/https://c2pa.org/] (last visited Jan. 26, 2025); *The Invention of Trust for Digital Media*, LICCIUM, https://liccium.com/ [https://perma.cc/JVQ8-RAC8] [https://web.archive.org/web/20250307031637/https://liccium.com/] (last visited Jan. 26, 2025).

management of rights is far from the only option. When considering options and evaluating potential intermediaries, potential members and licensees can look to established CMO guideposts relating to membership and representation obligations, distribution policies, administrative fees, transparency, and operational acumen.

Comments on How AI May Affect the Motion Picture Industry

*Ron Wheeler**

ANNOTATED TRANSCRIPT

On the movie industry's current distribution model and its history:

[WHEELER] If you put [still] pictures together in a series lasting twenty-two or forty-eight minutes, or two hours, then you get a television episode or feature-length motion picture. That's the origin of motion picture technology—it's the next generation technology of still photography—with the addition, of course, of audio in 1927 with *The Jazz Singer*.

The [audiovisual work/motion picture] licensing model is the thing that's a little different from the still photography licensing model. Each individual motion picture, whether it's a short-form video, a television episode or a movie, is an entire work in itself.[1] And it's actually the performance of the [entire] work that is the licensed object. So, it's not an input into another work, generally speaking. Obviously, you have clip licensing, which is not what we do. It's more like still photography than motion pictures per se.

But . . . Motion Picture Licensing Corporation, the company I work for, is one of only a few IMEs, Independent Management Entities in European parlance, in the United States.[2] And what we do is we also aggregate.

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* Ronald C. Wheeler, Head of Business and Legal Affairs (at the time of the Symposium) at Motion Picture Licensing Corporation (MPLC), which handles non-theatrical licensing for the motion picture industry. In the panel discussion, he discussed the current licensing regimes in that industry. Mr. Wheeler would like to thank his MPLC colleague Adam Winokur for his assistance in preparing the written version of these comments.

1. *See* 17 U.S.C. § 101, definitions of "Audiovisual Work" and "Motion Picture"; *see also* U.S. COPYRIGHT OFF., CIRCULAR NO. 45, COPYRIGHT REGISTRATION FOR MOTION PICTURES, INCLUDING VIDEO RECORDINGS, https://www.copyright.gov/circs/circ45.pdf [https://perma.cc/8PAU-BGP6] [https://web.archive.org/web/20250321032638/https://www.copyright.gov/circs/circ45.pdf] (last accessed February 21, 2025) (instructing applicants to submit entire works for a single registration).

2. In the U.S., MPLC is the only IME for comprehensive blanket licensing in an audiovisual context, while other U.S. IME's license music. ("[T]he [Copyright] Office is aware of only one collective in the United States that specifically licenses the public performance of audiovisual works at this time – the Motion Picture Licensing Corporation ("MPLC") – and it does not license the retransmission of television

So, we're similar to the [image licensing] companies [. . .] in that regard. We aggregate TV episodes and movies from over 1,000 producers. We exclusively represent producers. We don't represent directors or any other talent. We have the producer rights that we license as a group in a blanket license, similar to one of the rights that CMOs license in Europe.

And we operate not quite all over the world, but in about thirty-eight countries around the world. Another license we offer outside the United States, though not in the United States or the United Kingdom, is a license to the individual works as well as the separate group license. But the group license, the blanket license, is to play anything in our repertoire. It's all-you-can-eat, similar to the stock licenses [in an image licensing context].

Comments regarding where the movie industry experiences the pain associated with the AI age?

[WHEELER] I think, really, that it's on two different fronts. On the one hand, producers themselves, the people we represent, are very interested in AI as an input to their own productions. A prime application might be, if you just think of what traditionally were called "extras" and are now called "background actors." They're obviously relatively interchangeable.

If background actors were to be AI-generated in the future, rather than real people appearing onscreen, that would save producers a lot of money. Obviously, background actors themselves are not very excited about that. You may remember that one of the big issues in the strikes last year, SAG and the Writers Guild, was precisely replacement of their performances by AI generation.[3]

So that's one front. It's attempting to use AI to get some of the exorbitant costs of production under control. That's very positive, obviously, for producers, while a mixed bag, perhaps, for talent themselves.

On the output side, the generative side, if you will, I think it's the reverse. In other words, the producers themselves are worried about demand substitution of AI-generated video for human-produced video. Recognizing this, some producers are

programs." U.S. COPYRIGHT OFF., A REPORT OF THE REGISTER OF COPYRIGHTS ON THE SATELLITE TELEVISION EXTENSION AND LOCALISM ACT (2011), https://www.copyright.gov/reports/section302-report.pdf [https://perma.cc/DWN2-QCJT] [https://web.archive.org/web/20250317020116/https://www.copyright.gov/reports/section302-report.pdf]. Since this report's publication nearly 15 years ago, MPLC has expanded its ability to license television content as well, and is now the only U.S. source for collective public performance rights for a substantial amount of television content.)

3. Lesley Goldberg & Katie Kilkenny, *As SAG-AFTRA Responds to Studio Offer, AI Protections for High-Earning Members Remain Sticking Point*, HOLLYWOOD REP. (Nov. 6, 2023), https://www.hollywoodreporter.com/business/business-news/sag-aftra-ai-protections-for-high-earning-members-sticking-point-1235638247/ [https://perma.cc/K934-VBUJ] [https://web.archive.org/web/20250317020401/https://www.hollywoodreporter.com/business/business-news/sag-aftra-ai-protections-for-high-earning-members-sticking-point-1235638247/] (last accessed Feb. 21, 2025).

increasingly trying to get ahead of the curve a bit by pushing the positive (for them) aspects of AI.

You may have seen that Lionsgate, one of the mini-majors in Hollywood, just negotiated a deal just two weeks ago. I think it is with an AI company named Runway. It's an exclusive deal with Lionsgate for its own library of films and TV shows to train its producers, if you will, and the associated talent on the creative works that have gone before so that they can have ideas for future productions.[4]

The classic concept for elevator pitches is something like, "Well, it's *Star Wars* meets *Breaking Bad*," that sort of thing. If you think about that, that's essentially an AI concept. What would *Star Wars* be like if it were married with *Breaking Bad*? You could have generative AI generate that idea. Then humans would have to write it up and act in it. At least the lead actors would be human!

So, I think it's early days in the motion picture industry, but I think those are the two poles of where AI is going to play a significant increasing role.

I would briefly add another reference to the Lionsgate example I mentioned. Lionsgate itself wants AI generated ideas, really. They're not interested in Runway itself displaying anything, but Runway is essentially a vendor to Lionsgate to generate ideas for future projects.[5] That's an example of the licensing model being very different from the other AI examples that we've been discussing. And that's why licensing is the way to go here.

Regarding what form of licensing is most appropriate in the movie industry and where that's headed.

[WHEELER] Going back to my initial comment that AI ultimately could be perceived as a threat to the motion picture industry, I think deals like the Lionsgate deal are at least the short-term future of AI in the motion picture industry, where basically it's a tool for producers to generate new content, new original and human-created content, fully authentic and copyrighted by the producers.

I think that's going to come along. Right now, the competitive threat is mostly a still photography issue, but I think it's only a matter of time before fake TV episodes (and eventually, full-length features) are also ubiquitous on the internet and elsewhere. Fake short-form video already is.

I think that in the short-term, AI is going to be a tool used by producers for their internal purposes. I suppose, obviously, if the money is right, apropos of the licensing discussion that we've had all morning, if the money is right, producers might say, "Well, gee, if you pay me enough, I'll let you use my images to create your own videos,

4. Etan Vlessing, *Lionsgate CEO Says AI Deal Promises "Transformational Impact" on Studio*, HOLLYWOOD REP. (Nov. 7, 2024), https://www.hollywoodreporter.com/business/business-news/lionsgate-ai-deal-runway-1236055999/ [https://perma.cc/E63B-5NJ6] [https://web.archive.org/web/20250317020609/https://www.hollywoodreporter.com/business/business-news/lionsgate-ai-deal-runway-1236055999/] (last accessed Feb 21, 2025).

5. *Id.* ("Runway will create and train a model for the use of Lionsgate[.]").

your own TV and movies." But I think that's a ways off because of the threat model that I mentioned earlier.

Regarding improvements that AI will confer in the movie production industry.

[WHEELER] I've already mentioned the background actor/extra issue in motion picture production, but you can also think of CGI. [T]he movie *Gladiator*, one of my favorite movies of all time, has CGI generated pictures of images of the crowd at the Colosseum and other places where the gladiators battle.[6]

You could easily imagine AI making that way better. I mean, if you remember, it actually looks a little bit fake because it's a twenty-plus-year-old film. So, there's lots of exciting things that AI can do for the motion picture industry in an input phase. And I think you'll see more and more of that in the early phases. Later on, there's going to be the issue of fake *Gladiator*. But that's a ways down the pike, I think.

Responding to Professor Jane Ginsburg's question ("You said that Lionsgate is making deals with itself. And I'm wondering if the reason for that is the old license, new media problem. That is that the various contributors to a motion picture may have signed contracts well before the advent of AI. And there's some ambiguity as to whether that contract covers this use.").

[WHEELER] [A]bsolutely true. Obviously—or perhaps not obviously—in the case of motion pictures, shame on any producer who doesn't have releases—contracts with every single element of the production. And they either do or do not permit licensing for AI purposes.

My guess—I obviously don't work at Lionsgate, [and] I have no familiarity with the details of that particular deal. I've only read publicly available articles about it. But my guess is since they did license the content, that there's probably—the analysis was probably that, since it's actually only for Lionsgate's use, that it was well within the bounds of their contractual arrangements with the talent.

That's a guess on my part. But I have a feeling that they have good lawyers over there. They're one of our clients, actually. I think they probably checked that all out before they signed the deal with Runway.

But it's a good point. [T]he actual talent is the source of the creative work, obviously[,] so their interests have to be taken into account. And they have representatives, of course, individually as well as collectively.

6. "The camera . . . shows a computer-generated environment of the whole Colosseum populated by 20,000-30,000 people. [.]" Tim Masters, *Q&A: Oscar-Winning Digital Trickery*, BBC (Jul. 6, 2001), http://news.bbc.co.uk/2/hi/entertainment/1424927.stm [https://perma.cc/B6D6-5LT3] [https://web.archive.org/web/20250317020914/http://news.bbc.co.uk/2/hi/entertainment/1424927.stm] (last accessed Feb. 21, 2025) (quoting Robin Shenfield, CEO of Mill Film, 2001 Academy Award Winner for Best Visual Effects for his work on GLADIATOR).

In terms of the guilds, the guilds have played a large part—I previously mentioned the strikes last year. A huge element of the settlement of the strike was arrangements about compensation for AI uses.[7] And in fact, there's also recently, just again earlier this month, a new law putting some of those protections into California law that Governor Newsom signed at, I think, DGA headquarters in LA.[8]

Responding to a question from Sharon Weinstock with McGraw Hill. ("And further to your comment about or your letting us know about that internal licensing for internal use by Lionsgate, is there money flowing back and forth from which the original writers, producers are getting paid in some way for the ideas that are being generated from that review of the existing scripts?").

[WHEELER] I have to say, I don't know. I only know what's in the article. And I don't believe the article discusses any financial terms. Runway likely doesn't work for free, but they may have negotiated a barter arrangement of some kind. My guess is that Lionsgate probably compensated them in some form to perform the generative AI.

Again, it's a guess. I'm not knowledgeable about the details of the deal—but in that case, there would be no money coming to Lionsgate, and therefore nothing to distribute to the talent. On the other hand, back to the talent contracts that Professor Ginsburg referred to, it may well be that they say, "If you license for AI purposes, even for your internal use, and something is created from it, then we get a residual." I can just imagine that.

But again, the creative talent, and their lawyers and agents, would be the ones to control the licensing. Another example of why licensing is the way to go, rather than having it be fair use or anything else.

Following other panelists' responses, commenting on a question asked by Suzanne Kelsey with McGraw Hill ("We're talking about doing licenses that bake in guardrails to protect against competitive output. How comfortable are we that this is enforceable?").

[This] question is far more apt for the unlicensed case, where you're trying to figure out whether your creative work has been scraped and fed into a large language

7. Goldberg & Kilkenny, *supra* note 3.

8. *See* CALIFORNIA GOVERNOR'S OFFICE PRESS RELEASE, GOVERNOR NEWSOM SIGNS BILLS TO PROTECT DIGITAL LIKENESS OF PERFORMERS (Sept. 17, 2024), https://www.gov.ca.gov/2024/09/17/governor-newsom-signs-bills-to-protect-digital-likeness-of-performers/ [https://perma.cc/BP5V-DSPE] [https://web.archive.org/web/20250317021140/https://www.gov.ca.gov/2024/09/17/governor-newsom-signs-bills-to-protect-digital-likeness-of-performers/] (last accessed Feb. 21, 2025) (referencing the newly signed California Assembly bills 2602 and 1836, which "help ensure the responsible use of Artificial Intelligence (AI) and other digital media technologies in entertainment by giving workers more protections.").

model or some other generative AI. That's much more challenging than enforcing the terms of a contract.

Responding to a question from Makena Joy Binker Cosen ("[The panelists suggested that] for commercial purposes, generative AI may be used more so for ideation than the final product, because companies are interested in owning and making sure that whatever they put out, they have some level of control over it. [I]deas aren't copyrightable. But if we're using generative AI to make ideas, it may suggest expressive elements []. [If using] that idea [] to make [a] commercial image or movie, how much does using generative AI for the ideation process limit your ownership, if at all []?")

[WHEELER] []. Well, it has to be copyrightable, right? That's the whole discussion about whether anything generated in whole by AI is, at least so far in the United States anyway, considered not to be copyrightable. But how about partial, or expressions of the ideas behind it, and so on. I'm interested in what [the other panelists] have to say about it, but that's the whole copyrightability question.[9]

If you're Lionsgate, actually, you absolutely want to have a copyrightable product when you take whatever you take from your Runway deal and turn it into [] whatever it is.

Responding to a question from a Korean Judge and Columbia Law School graduate (name inaudible) ("[W]hen image creators or movie creators license their works to AI, can they limit the use of their work[, for example, to prevent output being used for] propaganda, or politically, or commercially[?]).

[WHEELER] They can certainly try. Just to take a slightly different example, all of [MPLC's] customer agreements with people who display the movies and TV shows that we license for public performance, say that you may not use any of our content to endorse another product or service, whether of yours or anyone else's. Again, a challenge to enforce perhaps, sometimes, but licenses can absolutely prohibit uses that you don't want.

Commenting on a question by David Strickler, Copyright Royalty Board judge, regarding the use, onerousness, and enforceability of liquidated damages in an AI training context.

[WHEELER] [In] my personal experience, liquidated damages clauses are not as valuable as people sometimes think they are, because, of course, you have to collect on the liquidated damages themselves—they are not self-enforcing. And if the other

9. *See generally* Copyright Registration Guidance: Works Containing Material Generated by Artificial Intelligence, 88 Fed. Reg. 16190, 16191 (Mar. 16, 2023) (to be codified at 37 C.F.R. pt. 202).

party disagrees that the clause has been triggered, then you don't get the liquidated damages, absent litigation.

I think the strongest remedy that a licensor has is termination, recognizing that the issue of unlearning, which is yet to be decided, whether a termination can be effective once something has been trained. But to me, that's the strongest weapon that any licensor has.

Commenting on a question by Roy Kaufman from CCC regarding whether AI is causing creators who use, e.g., Creative Commons licenses or open licenses on YouTube, to rethink perhaps what they did in the past.

[WHEELER] You mentioned YouTube creators. Actually, my own experience with YouTube comes from the fact that I used to work almost twenty-five years at 20th Century Fox, 16 of which I spent leading Fox's anti-piracy efforts. YouTube was, of course, a piracy platform at the beginning.[10] And then it became primarily original user-generated content. And now if you go on YouTube, as I do, it's increasingly licensed copyrighted works. Full movies are on there, sometimes free with a subscription, sometimes you pay on a per-use basis.[11]

My general sense of the world is that everyone who started off looking for name recognition, and clicks, and so on, eventually says, show me the money. I think that the direction of the world—not exclusively, of course, there are plenty of platforms where free content is available without a license or maybe a Creative Commons license. But I think the long run trend is actually, to use the theme of this conference, licensing copyrightable works.

10. *See* Viacom Intern., Inc. v. YouTube, Inc., 676 F.3d 19, 34 (2d Cir. 2012) (quoting YouTube cofounder Jawed Karim discussing hosting of CNN's copyrighted content in 2005: "we can remove it once we're bigger and better known, but for now that clip is fine.").

11. *See* Movies & TV, YOUTUBE, https://www.youtube.com/feed/storefront [https://perma.cc/TF5T-25YC] [https://web.archive.org/web/20250317020807/https://www.youtube.com/feed/storefront] (last accessed Feb. 21, 2025).

The Stock Photo Industry and Generative AI

Nancy E. Wolff[*]

This Paper presents the evolution of and the effect of generative AI on the image licensing industry. The Paper discusses the history of the image licensing industry, then analyzes the value of the contemporary image licensing market, with a focus on the metadata associated with the images. It will provide analysis into the effects of the emergence of generative AI technology on the image licensing industry. The Paper synthesizes ideas presented at the 2024 Symposium of the Kernochan Center for Law, Media and the Arts.

I. HISTORY OF THE IMAGE LICENSING INDUSTRY

The stock photo industry has been around since the 1920s[1] and currently offers the media, design, advertising, and other uses of visual imagery a vast and diverse array of visual content readily available for licensing, with many different pricing models. The term "stock" is an industry phrase for visual content that already exists, and the common denominator of all image archives—whether historic imagery or contemporary content—is that the visual content file can be licensed by users for a broad range of purposes.[2] Visual content libraries serve both the editorial news and media industry with authentic photojournalism of news, culture, and sports, and these libraries provide the commercial advertising and marketing world with released images of models and properties that cover all types of commercial uses.

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1. Ivanna Attié, *The Impressive 100-Year History of Stock Photography: From Analog To AI*, STOCK PHOTO SECRETS (Sept. 13, 2024), https://www.stockphotosecrets.com/stock-agency-insights/history-of-stock-photography.html [https://perma.cc/4KM2-4YF8] [https://web.archive.org/web/20240930221120/https://www.stockphotosecrets.com/stock-agency-insights/history-of-stock-photography.html].
2. *Id.*

A robust copyright system is essential to this industry, as the ability to license the same visual image for multiple purposes is the foundation of the business model. Stock photography or visual image licensing, as it often referred to as now, includes all forms of visual and audio-visual content, from photography, illustration, audio visual works, motion, vectors and 3D models. Today, this includes licensing the digital files and the metadata associated with them for AI training.

The early advantage of licensing stock as an image user is that you have access to and can research already existing imagery available for licensing. The alternative is to hire photographers or videographers for a unique assignment, which includes not only the creative fees of the photographer or videographer but also includes all the expenses of the shoot including location and travel fees, equipment rentals assistants, stylists, models, and post-production work. Factors such as weather and lighting conditions can add uncertainty and delays as well. This may be appropriate for unique brand imagery, which needs to be exclusive, but not necessary for many uses of images to illustrate publications, brochures, and other materials. Stock photography libraries also provided photographers with extra income based on licensing "outtakes," as they would return with from a photo assignment with many rolls of film in the pre-digital age, and the publication would select only a few photographs to publish from each shoot, leaving the remainder of the shots unpublished.

The initial stock industry developed around companies that would organize these photographic slides or outtakes by subject and store them in file cabinets that could be searched by photo researchers.[3] These photo researchers were familiar with the many specialty libraries that existed in the era of film, and would be on staff at these companies or hired by publishers. Such companies could include a textbook publisher to research various subjects and search the files of many places, borrow slides (which were the original film from the camera in most instances), make a selection for possible publication, and finally, return the borrowed slides after publication.

Many new wire or photojournalism companies provided publications with press prints, printed photographs made predominantly from black and white film taken by photojournalists. These photographs were stamped on the back by the wire service, delivered to publishers for publication, and then returned to the news service.[4]

In the 1980s and 1990s, commercial libraries expanded by the limitations of sending original film to publishers (which could be lost or damaged) by creating duplicate slides and sending prospective commercial customers large catalogs of sample images that were available for commercial use and that were produced by commercial

3. Jim Pickerell, *History of the Stock Photo* Industry, SELLING STOCK (Aug. 7, 2006), https://www.selling-stock.com/Article/history-of-the-stock-photo-industry-0 [https://perma.cc/XNB8-GJUB] [https://web.archive.org/web/20250318082608/https://www.selling-stock.com/Article/history-of-the-stock-photo-industry-0].

4. Vet Collector, *Photography Class: It's What's on the Back (of Vintage News Photos) that Counts*, CHEVRONS & DIAMONDS (Dec. 13, 2019), https://chevronsanddiamonds.org/2019/12/13/photography-class-its-whats-on-the-back-of-vintage-news-photos-that-counts/ [https://perma.cc/RPK2-SKLA] [https://web.archive.org/web/20250318083352/https://chevronsanddiamonds.org/2019/12/13/photography-class-its-whats-on-the-back-of-vintage-news-photos-that-counts/].

photographers who hired models and acquired broad releases for any commercial or advertising use.[5] These commercial images were produced specifically for the purpose of being licensed by commercial users, such as advertising agencies, design companies, corporations, and more. The professional "stock photographer" and production houses were born. Licensed through large glossy print catalogs, customers could select images without the full expense of a photo shoot, the uncertainty of rain delays, or other failures.

In the 1990s, digital cameras became more accessible and less expensive, leading to higher-quality images being created digitally by photographers, as well as an increase in the scanning of film and slides.[6] The digital revolution exploded and innovative technology companies such as PhotoDisc started selling commercial images on CD-ROMs licensed for broad commercial use.[7] From the late 1990s to the early 2000s, many consolidations in the industry took place in which smaller specialty libraries were purchased by companies that had the resources to develop online platforms allowing users to search for images using keywords that were associated with the now digital images.[8] Early pioneers in the industry were Getty Images, Corbis Corporation, Alamy, and others.[9] In the mid-2000s through 2020, with the barriers to entry decreasing and less expensive digital cameras available, many "microstock" or user-generated stock companies were founded, such as iStock and Fotolia.[10]

II. THE CONTEMPORARY IMAGE LICENSING INDUSTRY

The image licensing industry continues to hold significant value in today's digital age, as it provides a vast collection of millions of digital images that users can easily search for using keywords and that may be licensed on platforms that operate on a 24/7 basis. These contemporary image libraries function as aggregators that compile, verify, and curate large catalogs of image content that are wholly owned, owned by individual contributors, or licensed through other distributors.[11] This includes editorial news wire companies as well as commercial image libraries. Now, the larger image libraries license images through user-friendly online platforms with robust search capabilities. On their digital websites and platforms, these image libraries each host thousands of millions of

5. Pickerell, *supra* note 3.

6. *The Time-Travelling Camera: A Short History of Digital Photo Manipulation*, SCIENCE + MEDIA MUSEUM (June 16, 2021), https://www.scienceandmediamuseum.org.uk/objects-and-stories/digital-photo-manipulation-history [https://perma.cc/GR3J-PD3W].

7. Attié, *supra* note 1.

8. *See* Jim Pickerell, *Getty & PhotoDisc Merge*, Selling Stock (Sept. 24, 1997), https://www.selling-stock.com/Article/getty-photodisc-merge [https://perma.cc/2T5R-EH3H] [https://web.archive.org/web/20250318085244/https://www.selling-stock.com/Article/getty-photodisc-merge]; *Getty Images Acquires the Michael Ochs Archives, Offering Customers Easy Access To Extraordinary Imagery of 20th Century Music and Entertainment Legends*, GETTY IMAGES (Feb. 27, 2007), https://web.archive.org/web/20110711091018/http://company.gettyimages.com/article_display.cfm?article_id=151&isource=corporate_website_ind_press_release.

9. Attié, *supra* note 1.

10. *Id.*

11. *See id.*

images that are available for buyers to instantaneously search, license, download, and use. Alamy, for instance, has more than 390 million stock images.[12] Commercial images, as well as editorial images depicting the news, culture, and events, are all available at the fingertips of potential buyers.

Image licensing companies engage in a contractual relationship with contributors in which the company issues and manages licenses for their work. Other than staff photographers, which is more common with photojournalism, when a buyer purchases a license for images from an image library, the authors of the images earn a royalty, which is a percentage share of any license made in relation to their content.[13] The value of the global image licensing industry is estimated at $4 billion in 2023, and the value is projected to increase to $7.16 billion in 2033.[14]

III. METADATA—A PICTURE IS WORTH A THOUSAND WORDS

The image licensing industry has developed and invested in very robust and accurate metadata associated with digital images that are stored in the companies' databases. This metadata is crucial in facilitating effective search and licensing of visual content. Metadata refers to the information embedded in the images that describes the depiction and content of a digital visual asset.[15] Metadata typically includes keywords, titles, and descriptions, in addition to copyright information, creator details, and technical specifications.[16] In the digital world, where millions of images exist and millions more are uploaded daily, metadata is an invaluable asset to categorize, organize, and ensure the deliverability of images. Additionally, accurate description of the images helps image licensing companies to cure potential bias in the representations in the image industry.

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12. ALAMY, https://www.alamy.com [https://perma.cc/TGA6-FVA7] (last visited Feb. 15, 2025).

13. *See* Teresa Ciulla, *Making a Living as a Stock Photographer*, ENTREPRENEUR (June 15, 2021), https://www.entrepreneur.com/starting-a-business/making-a-living-as-a-stock-photographer/339819 [https://perma.cc/JR7T-QV3W] [https://web.archive.org/web/20250318090452/https://www.entrepreneur.com/starting-a-business/making-a-living-as-a-stock-photographer/339819]; *see also Royalty Guides*, COMMUNITY WEBSITE https://contributors.gettyimages.com/help/article/5191 [https://perma.cc/5BKC-9KZB] (last visited Mar. 18, 2025).

14. The Brainy Insights, *Stock Images Market Size Projected To Surge USD 7.16 Billion Growth by 2033, Exhibit a CAGR of 6%*, YAHOO FIN. (July 31, 2024), https://finance.yahoo.com/news/stock-images-market-size-projected-230000097.html [https://web.archive.org/web/20250123172035/https://finance.yahoo.com/news/stock-images-market-size-projected-230000097.html].

15. Kimmo Elo, *Big Data, Bad Metadata: A Methodological Note on the Importance of Good Metadata in the Age of Digital History*, *in* DIGITAL HISTORIES: EMERGENT APPROACHES WITHIN THE NEW DIGITAL HISTORY 103, 108 (Mats Fridlund et al., 2020).

16. Sharon D. Nelson & John W. Simek, *Metadata in Digital Photos—Should You Care?*, SENSEI ENTERS. (Sept. 9, 2013), https://senseient.com/wp-content/uploads/09-09-13-Digital-Photo-metadata.pdf [https://perma.cc/86RG-VNE4] [https://web.archive.org/web/20250123172454/https://senseient.com/wp-content/uploads/09-09-13-Digital-Photo-metadata.pdf].

The image industry is driven by the way its customers search. The metadata associated with each image is crucial for buyers to locate and license desired images. Without accurate and precise metadata describing the images, it would be nearly impossible for images to be discovered by a potential buyer. Keywords and titles associated with the photos and used for searching have become very sophisticated—they include not only descriptors of what an image literally depicts (such as the precise facts of core subject including ethnicity, gender, age or age range, and other descriptive characteristics such as clothing, hair color, and tattoos), but also the emotion, mood, and concept an image represents.[17] An image buyer, when searching for a specific kind of image, can input keywords that describe a desired image—and even descriptors of mood and feeling an image invokes—to locate the best visual asset for the intended use. Some of the metadata is inputted by contributors who upload their images to the libraries. Adobe Stock, for instance, as well as others, trains its contributing authors to refine their input of metadata to be accurate and authentic to ensure discoverability and efficiency.[18] The rich and descriptive metadata of the image thus maximizes the commercial potential of the images by allowing buyers to locate their desired images and encouraging licensing.

Accurate and robust metadata accompanying images not only effectuates precise and efficient searches but also allows image licensing companies to combat common biases in representation. The image licensing industry has long recognized that image search is prone to bias; search results often show images with one-sided racial and gender subjects.[19]Major image licensing companies, sought to cure this issue by creating new libraries and filters to highlight diversity across race, gender, ability, and age.[20] Others, such as Adobe Stock, created the Adobe Stock Advocates program to support and commission images from photographers of underrepresented communities.[21] Smaller image licensing companies, such as TONL, Mocha Stock, and PocStock were created with the mission to host diverse and representative imagery.[22] In addition to curating

17. *Maximize Metadata To Get Discovered*, ADOBE (Nov. 7, 2024), https://helpx.adobe.com/stock/contributor/help/artist-hub-migration/maximize-metadata-to-get-discovered.html [https://web.archive.org/web/20250216005734/https://helpx.adobe.com/stock/contributor/help/artist-hub-migration/maximize-metadata-to-get-discovered.html].

18. *Id.*

19. *See* Douglas Guilbeault et al., *Online Images Amplify Gender Bias*, 626 NATURE 1049 (2024).

20. *See* Kendra Barnett, *How Getty and Shutterstock Are Combating Algorithmic Bias To Make Marketing More Inclusive*, DRUM (Dec. 9, 2021), https://www.thedrum.com/insight/2021/12/09/how-getty-and-shutterstock-are-combating-algorithmic-bias-make-marketing-more [https://perma.cc/Z7VT-6LXS] [https://web.archive.org/web/20240723231413/https://www.thedrum.com/insight/2021/12/09/how-getty-and-shutterstock-are-combating-algorithmic-bias-make-marketing-more].

21. *See* Shoshana Gordon, *3. How Stock Images Can Reinforce Racism*, AXIOS (Nov. 13, 2021), https://www.axios.com/2021/11/13/how-stock-images-can-reinforce-racism [https://web.archive.org/web/20240523195656/https://www.axios.com/2021/11/13/how-stock-images-can-reinforce-racism].

22. *Id.*; *The Diversity Lens*, POCSTOCK, https://www.pocstock.com/thediversitylens [https://perma.cc/B9UJ-VG5B] [https://web.archive.org/web/20250318102928/https://www.pocstock.com/thediversitylens] (last visited Mar. 18, 2025).

libraries with visual content that focuses on highlighting diversity, image licensing companies have also added ethnicity filters in their search functions to facilitate more diversity in the search results.[23] Here, the importance of metadata is apparent—the precise keywords associated with the photos allow the filters to identify the characteristics of subjects in the photos and to therefore present diverse and representative images as options for buyers. Beyond the filters, metadata and its precise description of each image allow the companies to identify and surface images that depict people of different genders, ages, races through their search algorithms.[24] Lastly, keywords and descriptions inputted by individual contributors bring a diversity of worldviews, culture, and backgrounds onto an image licensing platform in and of themselves.[25]

IV. AGE OF GENERATIVE AI

The presence of text-to-image AI models such as DALL-E, Midjourney, and Stable Diffusion has undoubtedly disrupted the image licensing industry. These AI tools have the capability to generate realistic images from text prompts, thus offering image users a comparably more affordable and faster alternative that seemingly gives them more control. In light of this recent technology's increasing ease of use and popularity, photographers and others in the creative industries fear that the image industry will cease to exist.[26] However, even though generative AI technologies might have the ability to offer some of the similar benefits that image licensing companies have been able to offer, the current generative AI technology's flaws, such as biased outputs and unreliable outputs, prevent it from replacing the image industry that offers trusted content and legal rights to use images. Furthermore, image licensing companies have been taking active steps to develop internal AI models as trusted image sources without some of the legal flaws of the open generative AI models and to engage in a newly imagined licensing market in order for stock images and generative AI tools to coexist in a controlled manner.[27]

Text-to-image generative AI models take user inputs in the form of text prompts and produce imagery matching the description using machine learning.[28] Researchers

23. *Id.*

24. *See* Barnett, *supra* note 20.

25. *Id.*

26. *See* Katie Deighton, *The Last Stock Photographers Await Their Fate Under Generative AI*, WALL ST. J. (May 1, 2024), https://www.wsj.com/articles/the-last-stock-photographers-await-their-fate-under-generative-ai-822d1e6a# [https://web.archive.org/web/20240930225940/https://www.wsj.com/articles/the-last-stock-photographers-await-their-fate-under-generative-ai-822d1e6a].

27. *See* Matthew Smith, *Shutterstock Earned Over $100 Million in Revenue Thanks in Part To Its AI-Powered Image-Generator Tool*, BUS. INSIDER (Dec. 14, 2024), https://www.businessinsider.com/shutterstock-integrated-gen-ai-stock-digital-photo-video-content-service-2024-12 [https://perma.cc/554N-FQCX] [https://web.archive.org/web/20250318103352/https://www.businessinsider.com/shutterstock-integrated-gen-ai-stock-digital-photo-video-content-service-2024-12].

28. Ben Wodecki, *AI Image-Generation Models and Tools: The Ultimate List*, AI BUS. (July 25, 2023), https://aibusiness.com/nlp/the-essential-list-ai-image-generation-models-and-tools

train image-generating AI systems by feeding a computer system millions of images, typically scraped from the internet[29]. The text descriptions that are associated with the images (i.e., the metadata) are also inputted for the system to recognize the relationship between the images and to interpret the database of words and pictures.[30] The technology used by popular text-to-image generative AI systems is called the "diffusion model," which is algorithms that generate pieces of new work by iteratively refining an initial input.[31] The idea behind the diffusion models is to "start with a random input . . . and then repeatedly apply a set of transformation rules, such as blurring, cropping, or color adjustments, to create new outputs that are similar to the training examples."[32]

Even though AI models can generate images quickly and on command, images produced by generative AI have been riddled with problems due to the way that they are trained. One of the most significant problems with AI generated images is that they parrot and perpetuate the biases found in the training data. As mentioned above, AI models are trained on a vast amount of internet data, which contains both accurate and inaccurate information, as well as societal and cultural biases.[33] The resulting images of a text-to-image interaction reflect and have the possibility to amplify that existing bias. An analysis of more than 5,000 images created with Stable Diffusion conducted by Bloomberg reveals the existence of AI racial, ethnic, and gender biases.[34] When Stable Diffusion was prompted to generate representation of workers for more than a dozen high-paying and low-paying jobs, the output images showed most subjects of high-paying jobs, such as politician, lawyer, judge, and CEO, as men with lighter skin tones.[35] Contrastingly, subjects with darker skin tones were generated to represent low-paying

[https://web.archive.org/web/20250120165328/https://aibusiness.com/nlp/the-essential-list-ai-image-generation-models-and-tools].

29. Gil Appel et al., *Generative AI Has an Intellectual Property Problem*, HARV. BUS. REV. (Apr. 7, 2023), https://hbr.org/2023/04/generative-ai-has-an-intellectual-property-problem [https://perma.cc/5EZH-84JG] [https://web.archive.org/web/20250318103637/https://hbr.org/2023/04/generative-ai-has-an-intellectual-property-problem].

30. Kevin Schaul et al., *AI Can Now Create Images Out of Thin Air See How It Works*, WASH. POST (Dec. 17, 2022), https://www.washingtonpost.com/technology/interactive/2022/ai-image-generator/ [https://web.archive.org/web/20250207043723/https://www.washingtonpost.com/technology/interactive/2022/ai-image-generator/].

31. *Generative AI Art Tools Explained: Dall-E 2 and Stable Diffusion*, PERSONALIZATION (Jan. 15, 2023), https://www.perzonalization.com/blog/generative-ai-art-tools-explained/ [https://web.archive.org/web/20250207044123/https://www.perzonalization.com/blog/generative-ai-art-tools-explained/] (last visited Feb. 7, 2025).

32. *Id.*

33. *When AI Gets It Wrong: Addressing AI Hallucinations and Bias*, MIT MGMT. SLOAN TEACHING & LEARNING TECHS., https://mitsloanedtech.mit.edu/ai/basics/addressing-ai-hallucinations-and-bias/ [https://perma.cc/9J44-QJMY] [https://web.archive.org/web/20250318104019/https://mitsloanedtech.mit.edu/ai/basics/addressing-ai-hallucinations-and-bias/] (last visited Feb. 7, 2025).

34. Leonardo Nicoletti & Dina Bass, *Humans Are Biased. Generative AI Is Even Worse*, BLOOMBERG (June 9, 2023), https://www.bloomberg.com/graphics/2023-generative-ai-bias/ (last visited Apr. 3, 2025).

35. *Id.*

jobs like social worker and fast-food worker.[36] Additionally, the majority of occupations in the output were dominated by men, except in low-paying jobs such as cashier and housekeeper.[37] Significantly, only two out of the three hundred images generated to represent engineer were of perceived women.[38] The glaring bias of AI output was worse than reality. For instance, according to the same Bloomberg analysis, when prompted with keyword "judge," only 3% of the subjects in the generated images were perceivably women; however, in reality, 34% of U.S. judges are women.[39] Similarly, more than 80% of the images generated in response to the prompt "inmate" were people of darker skin, even though the Federal Bureau of Prisons reports that people of color make up less than half of the prison population in the United States.[40]

Stable Diffusion was trained on an image-text dataset with more than five billion images and captions found on the internet.[41] The datasets were scrapped programmatically from websites without any human curation.[42] Other text-to-image AI models are trained in similar ways. Since AI models mimic the patterns in the training datasets,[43] AI models in turn can repeat and reinforce incorrect stereotypes and assumptions about race, class, age, and gender that exist in the original data. Furthermore, unlike curated images that contain accurate and detailed metadata in the form of keywords and descriptions, many images uploaded to the internet are stripped of that precise metadata. Therefore, datasets used to train AI most likely contain incomplete or inaccurate metadata, if any at all. The lack of strong metadata can lead to biased AI outputs that mirror the shortcomings of the training data. Furthermore, images generated by AI models are becoming increasingly indistinguishable from real photographs as technology advances. If these images, which often exaggerate stereotypes of race and gender, are used as training datasets for future models, the next generation of text-to-image AI could suffer from even greater bias.[44] This foreseeable vicious cycle can amplify biases with potentially significant negative consequences for society. Text-to-image AI systems' biased outputs run the danger of perpetuating stereotypes, stalling progress towards greater equality in representation, and causing unfair treatment.[45] Another major issue is that generative AI models are trained on

36. *Id.*
37. *Id.*
38. *Id.*
39. *Id.*
40. *Id.*
41. *Id.*
42. *Id.*
43. *When AI Gets It Wrong: Addressing AI Hallucinations and Bias*, *supra* note 33.
44. Leonardo Nicoletti & Dina Bass, *supra* note 34.
45. *Id.* On top of biased outputs, AI generated images have become a source of disinformation and propaganda. A recent example concerned an image that showed a young survivor of Hurricane Helene. The image, glaring with telltale signs of AI images such as deformed limbs and blurriness, was AI-generated. However, the image received millions of views on social media and invoked emotional responses criticizing the Biden administration's disaster responses. AI images similar to the previous example, especially used in the context of news reporting, can propel the spread of false information. *See* Huo Jingnan, *AI-Generated Images Have Become a New Form of Propaganda This Election Season*, NPR (Oct. 18, 2024), https://www.npr.org/2024/10/18/nx-s1-5153741/ai-images-hurricanes-disasters-propaganda

existing image-text datasets without crediting or compensating the contributors as original authors. Unlike the stock image licensing models where contributors receive a contracted royalty percentage with each license, no contractual relationship exists between content authors and the owners of AI tools. Since training datasets are scraped from the internet, most authors have not consented to, nor are they compensated for, their works being used in AI training. On the other hand, the AI image output can significantly reflect the look of the original training data, but the author of the original work would not receive credit.[46] Furthermore, training data of generative AI models may include information that is collected in violation of privacy laws.[47] For example, images scraped from the internet may have not obtained the necessary releases from individuals and properties that appear in the images. Contrastingly, commercial images have proper model and property releases that allow the visual assets to be displayed and licensed through image libraries' platforms.

V. A NEWLY IMAGINED LICENSING INDUSTRY

Image licensing companies have been taking various approaches towards the rise of generative AI technology. For instance, Getty Images has pursued litigation in which it claims that OpenAI has used the image libraries datasets to train its AI models without proper licenses.[48] However, despite the ongoing litigation and the uncertainty of its outcome, image libraries have incorporated generative AI models in their platforms with guardrails to ensure proper use.[49] Major image licensing companies have also licensed their images and metadata to AI companies for training purposes.[50] This reflects the image licensing industry's belief in generative AI as an innovative tool, but also its desire to maintain the licensing market that is based on contractual

[https://perma.cc/3VN5-BT8T]
[https://web.archive.org/web/20250318105052/https://www.npr.org/2024/10/18/nx-s1-5153741/ai-images-hurricanes-disasters-propaganda].

46. This is the basis of the Getty Images lawsuit against OpenAI.

47. Dana Mancuso, *Privacy Considerations for Generative AI*, U. ILL. URBANA-CHAMPAIGN (July 17, 2023), https://cybersecurity.illinois.edu/privacy-considerations-for-generative-ai/ [https://perma.cc/V8EW-BV9A]
[https://web.archive.org/web/20250207045541/https://cybersecurity.illinois.edu/privacy-considerations-for-generative-ai/].

48. Matt O'Brien, *Photo Giant Getty Took a Leading AI Image-Maker To Court. Now It's Also Embracing the Technology*, AP NEWS (Sept. 25, 2023), https://apnews.com/article/getty-images-artificial-intelligence-ai-image-generator-stable-diffusion-a98eeaaeb2bf13c5e8874ceb6a8ce196
[https://web.archive.org/web/20250207050300/https://apnews.com/article/getty-images-artificial-intelligence-ai-image-generator-stable-diffusion-a98eeaaeb2bf13c5e8874ceb6a8ce196].

49. *See AI-Generated Content on Shutterstock: Contributor* FAQ, SHUTTERSTOCK CONTRIBUTOR SUPPORT, https://support.submit.shutterstock.com/s/article/Shutterstock-ai-and-Computer-Vision-Contributor-FAQ?language=en_US (last visited Mar. 18, 2025).

50. *See* Matt Growcoot, *All the Photo Companies that Have Struck Licensing Deals with AI Firms*, PETA PIXEL (Apr. 11, 2024), https://petapixel.com/2024/04/11/all-the-photo-companies-that-have-struck-licensing-deals-with-ai-firms/ [https://perma.cc/S7BW-W3SA]
[https://web.archive.org/web/20250318105711/https://petapixel.com/2024/04/11/all-the-photo-companies-that-have-struck-licensing-deals-with-ai-firms/].

transactions. More significantly, contractual licensing of images with accurate metadata mitigates the concerns of biases and privacy violations that proliferate in image-text AI models and ensures contributing authors are fairly compensated for the use of their works.

Image licensing companies, recognizing the value of the licensable datasets (i.e., images and robust metadata), have created a newly imagined relationship with AI companies through contractual licensing. Getty Images has partnered with Nvidia to build its own image generator trained exclusively using Getty Images' library and data with requisite permissions.[51] On its platform, Getty Images' users can input prompts to generate visual assets and customize specific element of an imaged licensed from the library. Users also have the option to upload their own photos to use as reference images. Getty Images ensures its users that its AI tool would produce "unique, legally protected" images that are commercially safe, since Getty Images' high-quality datasets are the only training material.[52] Adobe offers its own AI generator Firefly that can be used with its creative suite of design products.[53]

Another image company, vAIsual, has an innovative take on datasets. It created synthetic content with broad biometric releases, built its own legally clean dataset marketplace for the AI industry and offers custom dataset services.[54] There exists a strong licensing model for the images along with the associated metadata as companies recognize the value in licensing trusted and curated datasets.

This newly imagined licensing market between the image libraries and AI companies creates a more controlled way to utilize AI tools that is less hostile towards artists. Firstly, these licenses transform the way that image-generating AI models are trained: from data scraped without permission to high-quality images with rich and accurate metadata licensed from the authors and image licensing companies. This alleviates some of the fundamental issues of generative AI, such as biases and privacy law violations, because training images have obtained appropriated releases and are accompanied by precise keywords and descriptions. Furthermore, by engaging in a contractual relationship with AI companies to license images and metadata in their database, image licensing companies have the power to establish guardrails on what datasets are used, how these datasets are used, the purpose of such use, and how creatives are compensated. The guardrails in turn prevent unethical practices in generative AI and ensure fair compensation for contributors. Contents generated through these AI models, with the involvement of image licensing companies, are more reliable in their quality and integrity.

51. AI, GETTY IMAGES, https://www.gettyimages.com/ai [https://perma.cc/8WGX-HFBY] [https://web.archive.org/web/20250207050620/https://www.gettyimages.com/ai] (last visited Feb. 7, 2025).

52. *Id.*

53. *Adobe Firefly*, ADOBE, https://www.adobe.com/products/firefly.html (last visited Feb. 7, 2025).

54. *See About Us*, VAISUAL, https://vaisual.com/about/ [https://perma.cc/8XG5-VKSG] [https://web.archive.org/web/20250207052000/https://vaisual.com/about/] (last visited Feb. 7, 2025).

Past and Present Copyright Tribunals for Setting Royalties in the United States

*Steve Ruwe**

INTRODUCTION

I was asked to participate in The Kernochan Center's Symposium addressing "Past, Present and Future of Copyright Licensing." I noted that in light of my current role on the United States Copyright Royalty Board, my presentation and discussion participation would focus on the past and the present of *statutory* Copyright Licensing in the United States. I chose to exclude any personal outlook on the *future* of Copyright Licensing, leaving that to other participants. The same holds true for this Article, which adheres to the topics addressed in my presentation. Thus, as the Symposium and the public look to potential licensing solutions that may emerge amidst the development of Artificial Intelligence products, my hope is to offer a *brief*, and high-level, background on how the United States has approached statutory licensing in the copyright realm. In doing so, I often look to the Register of Copyright's 2015/2016 study, *Copyright and the Music Marketplace*,[1] and recommend that study as a far more comprehensive portrait of the *music* licensing landscape at it existed at the time—prior to the enactment of the Music Modernization Act in 2018.[2] Additional Copyright Office publications are available with more comprehensive information regarding the statutory licenses addressed herein.[3]

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1. U.S. COPYRIGHT OFF., COPYRIGHT AND THE MUSIC MARKETPLACE (2015), [hereinafter, COPYRIGHT AND THE MUSIC MARKETPLACE]. https://www.copyright.gov/policy/musiclicensingstudy/copyright-and-the-music-marketplace.pdf [https://perma.cc/CK9J-4WKA].

2. For detailed information about the enactment of the Music Modernization Act, see *The Music Modernization Act*, COPYRIGHT.GOV, https://www.copyright.gov/music-modernization/ [https://web.archive.org/web/20250121143204/https://www.copyright.gov/music-modernization/] (last visited Feb. 8, 2025).

3. *See Policy Studies*, COPYRIGHT.GOV, https://copyright.gov/policy/ [https://perma.cc/JUW2-669D] [https://web.archive.org/web/20250319123632/https://copyright.gov/policy/] (last visited Mar. 19, 2025) (providing access to various Copyright Office publications).

I. OVERVIEW OF STATUTORY LICENSES UNDER U.S. COPYRIGHT LAW

As much of what follows addresses statutory licensing in the realm of music, the following background is in order. A musical recording encompasses two distinct works of authorship: the *musical work*, which is the underlying composition created by the songwriter or composer along with any accompanying lyrics,[4] and the *sound recording,* which is the particular performance of the musical work that has been fixed in a recording medium such as a CD or digital file.[5] Given this overlap, musical works and sound recordings are frequently confused. However, a musical work and sound recording are separately protected, and can be separately owned, under copyright law.[6]

Generally speaking, *statutory* licenses are licenses created by operation of law as opposed to by contract or agreement by the parties. Generally, statutory licenses set forth processes as well as rates and terms under which specific classes of works may be used by specific types of users. Statutory licenses are also distinct from the collective licenses, such as those offered by performance rights organizations such as the American Society of Composers, Authors, and Publishers ("ASCAP") and Broadcast Music, Inc. ("BMI"), which are enabled by authority of the copyright owner, and which I do not address herein.

The United States Copyright Royalty Board ("CRB"), through and with the Library of Congress and the Copyright Office, currently administers the following licenses through various record-based proceedings, which are to be conducted pursuant to Chapter 8 of Title 17.

A. SECTION 114 AND SECTION 112

The section 114 and section 112 licenses allow for and facilitate different types of noninteractive digital music services to publicly perform sound recordings upon compliance with the statutory license requirements, including the payment of royalties as determined by the Copyright Royalty Board. Section 114 provides licenses or exemptions from the exclusive right to publicly perform sound recordings.[7] Section 112 provides licenses and exemptions for the making of the server copies necessary for transmissions which publicly perform sound recordings.[8]

The "CRB" sets the rates and terms for the section 114 and section 112 licenses.[9] Generally, the lists of various rate-setting proceedings and updates to rates and terms occur on five-year cycles.[10]

4. A musical work can be in the form of sheet music, i.e., notes and lyrics written on a page, or embodied in a phonorecord, i.e., in a recording of the song.
5. A sound recording comprises the fixed sounds that make up the recording.
6. COPYRIGHT AND THE MUSIC MARKETPLACE, *supra* note 1, at 18.
7. *See* 17 U.S.C. § 114.
8. *See id.* § 112.
9. *See id.* §§ 114, 112.
10. *See id.* § 804.

The section 114 and section 112 licenses address the following types of licensed uses of sound recordings:[11]

- Free and paid internet radio services[12]
- Preexisting satellite radio services[13]
- Preexisting music subscription services[14]
- Business establishment services[15]

The Copyright Royalty Board rate setting proceedings for the section 114 and section 112 license also include designating an entity to serve as a Collective for purposes of collecting, monitoring, managing, and distributing the sound recording royalties. In all recent proceedings, SoundExchange has been designated as the collective for the section 114 and section 112 license.[16]

B. SECTION 115

Section 115 allows for certain digital music services to make and distribute nondramatic musical works upon compliance with the statutory license requirements, including the payment of royalties as determined by the CRB.[17] Such rights for making and distributing of musical works are often referred to as "mechanical rights."[18] The Musical Works Modernization Act, in 2018, replaced the existing song-by-song compulsory licensing structure for making and distributing musical works with a blanket licensing system for digital music providers to make and distribute digital phonorecord deliveries (e.g., permanent downloads, limited downloads, or interactive streams).[19]

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11. Traditional over-the-air broadcasts are expressly exempted from the sound recording public performance right. *See id.* § 114(d)(1).

12. Free noninteractive internet radio services not exempt under 17 U.S.C. § 114(d)(1) qualify as "eligible nonsubscription services," and paid noninteractive internet radio services qualify as "new subscription services" under § 112 and § 114. *Id.* § 114(j)(6), (8).

13. A preexisting satellite digital audio radio service is a subscription satellite audio radio service provided pursuant to a satellite digital audio radio service license issued by the FCC on or before July 31, 1998. *Id.* § 114(j)(10).

14. A preexisting subscription service is a noninteractive audio-only service that was in existence on or before July 31, 1998. *Id.* § 114(j)(11).

15. Certain "business establishment services" may publicly perform sound recordings pursuant to an *exemption* from specified exclusive rights. *See id.* § 114(d)(1)(C)(iv). These services may make ephemeral copies of sound recordings pursuant to the statutory license in 17 U.S.C. § 112(e)(1) to facilitate digital audio transmissions of those sound recordings to business establishments.

16. *See e.g.*, Determination of Rates and Terms for Digital Performance of Sound Recordings and Making of Ephemeral Copies To Facilitate Those Performances (Web V), 86 Fed. Reg. 59452, 59585 (Oct. 27, 2021).

17. *See* 17 U.S.C. § 115.

18. *Mechanical Rights*, SONGTRUST, https://www.songtrust.com/music-publishing-glossary/glossary-mechanical-rights [https://perma.cc/NGJ5-FNA3] [https://web.archive.org/web/20250319132352/https://www.songtrust.com/music-publishing-glossary/glossary-mechanical-rights] (last visited Mar. 19, 2025).

19. *See The Music Modernization Act*, *supra* note 2; U.S. COPYRIGHT OFF., *Musical Works Modernization Act*, COPYRIGHT.GOV, https://www.copyright.gov/music-modernization/115/ [https://perma.cc/G2TH-

The CRB sets the rates and terms for the section 115 license.[20] Generally, the rate-setting proceeding and updates to rates and terms occur on a five-year cycle.[21] The CRB is also authorized to determine the amount of an administrative assessment fee to be paid by various licensees for the reasonable costs of starting up and continuing to operate the mechanical licensing collective, which is an entity designated by the Register of Copyrights, with the approval of the Librarian of Congress, to collect and distribute section 115 royalties as well as other related responsibilities.[22]

C. SECTION 118

Section 118 provides a compulsory license for the use of published nondramatic musical works and published pictorial, graphic, and sculptural works in connection with noncommercial broadcasting.[23]

The CRB sets the rates and terms for the section 118 license.[24] Generally, the rate-setting proceeding and updates to rates and terms occur on a five-year cycle.[25]

D. SECTION 111 AND SECTION 119

Section 111 provides cable service providers with a statutory license to retransmit a performance or display of a work embodied in a "primary transmission" made by a television station licensed by the Federal Communications Commission ("FCC").[26] Section 119 provides satellite service providers with a similar statutory license to retransmit a performance or display of a work.[27]

The CRB is authorized to adjust the section 111 and section 119 royalty fees. The royalty fees and statements of account detailing the retransmissions are provided by licensees semiannually to the Copyright Office. The Copyright Office deposits the royalties into the United States Treasury for later distribution to copyright owners of the broadcast programming that the cable systems retransmit, such distributions are determined through proceedings before the CRB.

On an annual basis, the Copyright Royalty Judges receive claims filed by persons claiming to be entitled to deposited statutory license fees. The Copyright Royalty Judges then commence *distribution* proceedings to address controversies that exist among claimants. Those proceedings may be consolidated to cover several years in a single proceeding. Completion of a proceeding occurs only after a final determination addressing allocation and a final determination addressing distribution, as well as

C6YH] [https://web.archive.org/web/20250125224818/https://www.copyright.gov/music-modernization/115/] (last visited Mar. 19, 2025).

20. *See* 17 U.S.C. § 115.
21. See *id.* § 804.
22. *See id.* § 115.
23. *Id.* § 118.
24. *See id.*
25. *See id.* § 804.
26. *See id.* § 111.
27. *See id.* § 119.

ensuing full and accurate final payments. However, the Copyright Royalty Judges may authorize the partial distribution of deposited cable and satellite royalty fees on motion by an interested claimant, provided certain conditions are met, including that the recipient of any partial distribution enters into an agreement to return any excess amounts to the extent necessary to comply with the final determination on the distribution of royalty fees.[28]

The CRB's proceedings for determining the distribution of the cable license royalties have historically been conducted in two phases. In Phase I, the royalties were divided among programming categories. The claimants to the royalties have organized themselves into categories of programming retransmitted by cable systems, e.g., movies and syndicated television programming; sports programming; commercial broadcast programming; religious broadcast programming; noncommercial television broadcast programming; Canadian broadcast programming; noncommercial radio broadcast programming; and music contained on all broadcast programming. In Phase II, the royalties allotted to each category at Phase I were subdivided among the various copyright holders within that category. In more recent proceedings, the Judges combined Phase I and Phase II into more singular proceedings addressing both the allocation of funds between program categories and distribution of funds among claimants. Completion a proceeding occurs only after a final determination addressing allocation and a final determination addressing distribution, as well as ensuing full and accurate final payments.[29]

E. CHAPTER 10

The statutory obligation in § 1003 of the Copyright Act provides that those who import or manufacture and distribute in the United States any digital audio recording device or digital audio recording medium must file notices of distribution and quarterly and annual statements of account and make royalty payments.[30] Compliance with the obligations in Chapter 10 protects against actions for infringement of copyright based on the manufacture, importation, or distribution of a digital audio recording device, a digital audio recording medium, an analog recording device, or an analog recording medium, or based on the noncommercial use by a consumer of such a device or medium for making digital musical recordings or analog musical recordings.[31]

The Copyright Office deposits the royalties into the United States Treasury for later distribution to copyright owners of the broadcast programming that the cable systems retransmit, such distributions are determined through proceedings before the CRB. The *distribution* proceedings operate similarly to those described above regarding the section 111 and section 119 royalties.

28. *See id.* §§ 111, 801.
29. *See, e.g.*, Distribution of Cable Royalty Funds, 84 Fed. Reg. 3552 (Feb. 12, 2019).
30. *See* 17 U.S.C. § 1003.
31. *See* 17 U.S.C. ch. 10.

II. DEVELOPMENT OF STATUTORY LICENSING AND RATE-SETTING IN THE UNITED STATES

By the early 1900s, technological advances made music available for the first time via "mechanical" renderings of songs captured in player piano rolls and phonograph records. Although music publishers insisted that physical embodiments of their works were copies, the Supreme Court held otherwise in the 1908 case *White-Smith Music Publishing v. Apollo*, reasoning that such reproductions were not in a form that human beings could "see and read."[32]

So, at that point, there was no mechanical right held by copyright owners and thus no basis for infringement claims. Then, Congress overrode the Supreme Court and recognized copyright owners' exclusive right to make and distribute, and authorize the making and distribution, of phonorecords—i.e., mechanical reproductions—of musical works.

Congress established these new rights, but made copyright owners subject to a mechanical statutory license, and at the same time set a $0.02 rate per use, in 1909.[33] This rate stayed the same for many, many years, all the way to 1976, when it was increased to 2.75 cents.[34]

At the same time, Congress also created the Copyright Royalty Tribunal ("CRT"), which was composed of five commissioners appointed by the President. The CRT was authorized to *adjust* the mechanical royalty rate thereafter.[35]

The idea of adjusting the statutory mechanical royalty rate periodically stemmed from a suggestion by a representative of the Recording Industry Association of America ("RIAA") in a 1967 hearing. He stated that such adjustments should reflect the "accepted standards of statutory ratemaking."[36]

In testimony in 1975, then-Register of Copyrights Barbara Ringer suggested that Congress could simplify the process of administering the mechanical license (as well as other proposed licenses) by establishing a separate royalty tribunal. The tribunal would base royalty rates on standards set by Congress.[37]

The Copyright Royalty Tribunal was eventually replaced in 1993 by the Copyright Arbitration Royalty Panel ("CARP") system. Rather than permanent appointees, the CARP arbitrators were convened for specific rate proceedings.[38] The CARP system, in

32. White-Smith Music Publ'g Co. v. Apollo Co., 209 U.S. 1, 8–9, 17–18 (1908).

33. H.R. REP. NO. 94-1476, at 111 (1976).

34. *Id.*

35. Copyright Act of 1976, Pub. L. No. 94-553, §§ 801–802, 90 Stat. 2541, 2594–96.

36. Frederick F. Greenman Jr. & Alvin Deutsch, *The Copyright Royalty Tribunal and the Statutory Mechanical Royalty: History and Prospect*, 1 CARDOZO ENT. & L.J., 1, 21–22 (1982). *See also Copyright Law Revision: Hearing on S. 597 Before the Subcomm. on Patents, Trademarks, & Copyrights of the S. Comm. on the Judiciary*, 90th Cong. 373, 377 (1967) (statement of Leonard Feist, Exec. Sec'y of Nat'l Music Publishers Ass'n).

37. *See Copyright Law Revision: Hearing on H.R. 2223 Before the Subcomm. on Cts., C.L. & the Admin. of Just. of the H. Comm. on the Judiciary*, 94th Cong. 1901, 1914 (1975) (statement of Barbara Ringer, Register of Copyrights).

38. Copyright Royalty Tribunal Reform Act of 1993, Pub. L. No. 103-198, § 802, 107 Stat. 2304, 2305 (codified as amended at 17 U.S.C. § 802).

turn, was replaced in 2005 by the current system, the CRB, which is composed of three administrative judges appointed by the Librarian of Congress.[39] The establishment of various rate-setting and license administration bodies occurred as the number and variety of licenses and administration obligations increased.

A. COPYRIGHT ROYALTY TRIBUNAL (1978–1993)

At first the CRT was responsible only for administering the Section 115 license (mechanical rights) and Section 118 licenses (rights usage in noncommercial broadcasting).

In 1990, Congress reduced the number of Commissioners from five to three, after concluding that three Commissioners were sufficient to handle the workload.[40]

In 1992, just prior to the CRT being replaced, Congress created a statutory royalty obligation for the manufacture and importation of digital audio recording technology (Chapter 10, Digital audio recording devices), and the CRT was tasked with administering the *distribution* of Digital audio recording royalties.[41]

Even with these new responsibilities, critics of the Tribunal believed that there was insufficient work.

B. COPYRIGHT ARBITRATION ROYALTY PANEL (1993–2004)

The CARP system "consist[ed] of *ad hoc* arbitration panels" that conducted record-based proceedings and "recommend[ed] the royalty rates and distribution of royalty fees collected under certain of the statutory licenses and set some of the terms and conditions of some of the statutory licenses."[42]

Each CARP was selected for a particular proceeding and had up to 180 days to deliver its recommendation for a rate adjustment or distribution.[43]

A CARP Report, which articulated the reasons for its recommendations and the evidence that supports its conclusions, was delivered to the Librarian of Congress.[44]

(1) Upon receipt of the CARP report, the Librarian had 90 days in which to either accept the determination of the CARP or to reject it.[45]

39. 17 U.S.C. §§ 801–05; Copyright Royalty and Distribution Reform Act of 2004, Pub. L. No. 108-419, 118 Stat. 2341.

40. Copyright Royalty Tribunal Reform and Miscellaneous Pay Act of 1989, Pub. L. No. 101-319, 104 Stat. 290, enacted July 3, 1990

41. *See* Audio Home Recording Act of 1992, Pub. L. No. 102-563, § 2, 106 Stat. 4237, 4237–48 (codified at 17 U.S.C. ch. 10)

42. *Copyright Arbitration Royalty Panel (CARP) Structure and Process: Hearing Before the Subcomm. on Cts., the Internet, & Intell. Prop. of the H. Comm. on the Judiciary*, 107th Cong. 34 (2002) (statement of Marybeth Peters, Register of Copyrights).

43. *Id.*

44. *Id.*

45. *Id.*

(2) The Librarian could reject the recommendation only if he or she determined that it was arbitrary or contrary to the provisions of the Copyright Act. The Register of Copyrights was directed to advise the Librarian on his or her decision.[46]

(3) If the Librarian rejected the CARP's recommendation, there would be an additional 30 days for the Librarian to issue a final order setting forth the rate adjustment or distribution, as the case may be.[47]

The number and type of proceedings for which CARP was responsible increased while the CARP system existed. The CARP system administered the licenses that the CRT had under its authority (Section 115, Section 118, Chapter 10), but also was tasked with administering the section 111 license (cable retransmission), the section 119 license (satellite retransmission). And, in 1995 and 1998, the CARP system was tasked with administering additional section 114 and section 112 licenses.[48]

Among the criticisms of the CARP system arose from the fact that, as an ad hoc system, there was not a lot of predictability as to what arbitrators were to preside in a given proceeding. Relatedly, there were concerns about lack of institutional expertise. Cost of proceedings was also a significant criticism. Arbitrators were compensated at between $200 and $400 an hour.[49] In proceedings involving many parties and large amounts of testimony, the costs steadily mounted. In royalty distribution proceedings, the arbitrators are paid from the collected royalty funds.[50] In royalty adjustment proceedings, the participants paid the arbitrators out of their own pockets.[51]

C. COPYRIGHT ROYALTY BOARD (2004–PRESENT)

The CRB is composed of three administrative judges appointed by the Librarian of Congress. The offices of the Copyright Royalty Judges and staff are located in the Library of Congress. The Librarian of Congress provides the Copyright Royalty Judges with the necessary administrative services related to CRB proceedings. Congress imposed strict qualifications for these positions. Each CRB judge is required to have at least seven years of legal experience.[52] The chief copyright royalty judge must have a minimum of five years of experience in adjudications, arbitrations, or court trials.[53] As for the other two judges, one must have significant knowledge of copyright law, and

46. *Id.*
47. *Id.*
48. Digital Performance Right in Sound Recordings Act of 1995, Pub. L. No. 104-39, 109 Stat. 336; Digital Millennium Copyright Act of 1998, Pub. L. No. 105-304, 112 Stat. 2960.
49. *Copyright Royalty and Distribution Reform Act of 2003: Hearing on H.R. 1417 Before the Subcomm. on Cts., the Internet, & Intell. Prop. of the H. Comm. on the Judiciary*, 108th Cong. 21 (2003) (statement of Marybeth Peters, Register of Copyrights)
50. H.R. REP. NO. 108-408, at 21 (2004).
51. *Id.* at 17.
52. 17 U.S.C. § 802(a).
53. *Id.*

the other must have significant knowledge of economics.[54] The judges are set to serve for terms of six years, with two-year intervals between each of the three judges' terms.[55]

The Register of Copyrights also plays a role in CRB rate-setting, in that he or she is responsible for reviewing the CRB's determinations to ensure they are free from material legal error, and may also be called upon to address material questions of substantive law that impact the proceedings.[56] Final determinations are appealable to the United States Court of Appeals for the District of Columbia Circuit.[57]

Congress revised the rate-setting process to encourage voluntary industry agreements when possible.[58] For example, Congress provided antitrust exemptions to statutory licensees and copyright owners of sound recordings, so that they could designate common agents to collectively negotiate and agree upon royalty rates.[59] The statute also allows for settlement of rate-setting disputes, and mandates a three-month "voluntary negotiation period" at the start of each proceeding before the parties submit their cases.[60] If a settlement is reached among some or all of the participating parties, the Act empowers the CRB to adopt that settlement "as a basis for statutory terms and rates" that will apply to all parties under the statutory license.[61] Absent a settlement, the CRB must conduct a proceeding to determine the rates and terms of the statutory license.

Although the CRB has flexibility in organizing its procedures, many aspects of its proceedings are dictated by the statute.[62] In many instances, these procedures depart from practices used in ordinary civil litigation. For instance, participating parties must file their written direct cases in support of their requested rates—including witness testimony and supporting exhibits—before any discovery has been taken.[63] Additionally, the statute requires separate direct and rebuttal phases of rate-setting hearings.[64] Several of these procedures cannot be altered by the CRB even upon stipulation of the parties.[65]

There have been some criticisms of the CRB process, including a desire to ensure that the CRB is able to address various proceedings in a consistent and timely manner. Relatedly, there have been proposals for additional licenses that would add to the CRB's jurisdiction and schedule. Recently, in an effort to address such concerns, Congress

54. *Id.*
55. *Id.* § 802(c).
56. H.R. REP. NO. 108-408, at 26 (2004); 17 U.S.C. § 802(f)(1).
57. 17 U.S.C. § 803(d)(1).
58. H.R. REP. NO. 108-408, at 24.
59. 17 U.S.C. §§ 112(e)(2), 114(e)(1), 115(c)(3)(B).
60. *See id.* § 803(b)(1)–(3).
61. *Id.* § 801(b)(7).
62. *See id.* § 803(b).
63. *See id.* § 803(b)(6)(C)(i) (requiring written direct statements, including witness testimony and exhibits, to be filed within four to five months after the negotiation period, before discovery begins); *id.* § 803(b)(6)(C)(iv) (providing for a discovery period following submission of written direct statements).
64. *See id.* § 803(b)(6)(C)(ii) (providing for written rebuttal statements to be filed after the discovery period, distinct from the direct case phase).
65. *See id.* § 803(b)(6)(C) (mandating procedural steps that constrain the CRB's discretion, even where parties might agree to alternative procedures).

removed a statutory cap on the staffing of the CRB.[66] Furthermore, the Library of Congress and the Copyright Office have devoted attention and resources toward ensuring more efficient issuance and implementation of final determinations from the CRB.

III. CONCLUSION

This overview on how the United States has approached statutory licensing in the copyright realm is admittedly a brief one, and there is much more detail that resides within every aspect recounted above. Despite the brevity, I hope that this Article and the Kernochan Center's Symposium may be fruitful as the public looks to potential licensing solutions that may emerge amidst the development of Artificial Intelligence products.

66. The Library of Congress Technical Corrections Act of 2019, Pub. L. No. 116-94, 133 Stat. 2534, 3208.

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

*Elliott Peters**

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).

Using Past Legislation as a Template for Future AI Licensing Legislation

*Joe Keeley**

Artificial intelligence ("AI") has become a major public policy issue in Washington across a range of industries.[1] The copyright community has also been focused on AI policy, most notably over the issues of training AI models on copyrighted works and the copyrightability of generative AI. This Article focuses on AI training. Copyright issues surrounding training are currently the subject of significant litigation in U.S. district courts, predominantly the Southern District of New York in which the fair use defense has been raised by AI companies.[2]

Copyright issues surrounding AI training may very well reach the U.S. Supreme Court. There is certainly enough money at risk on both sides of the issue to make it likely that at least once of the many current cases will eventually be heard by the Court. If the Supreme Court determines that a license is *not* generally required, the licensing question (and the basis for this Article) ends the day such a decision is announced. If, however, the Supreme Court determines that a license is often required, Congressional

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1. *See* Press Release, Chuck Schumer, Senate, Following Historic AI Insight Forums Over The Past Year, Leader Schumer, Senators Rounds, Heinrich, & Young Reveal Bipartisan Roadmap For Artificial Intelligence Policy In The United States Senate (May 15, 2024), https://www.schumer.senate.gov/newsroom/press-releases/following-historic-ai-insight-forums-over-the-past-year-leader-schumer-senators-rounds-heinrich-and-young-reveal-bipartisan-roadmap-for-artificial-intelligence-policy-in-the-united-states-senate [https://perma.cc/HM8Q-SACS] [https://web.archive.org/save/https://www.schumer.senate.gov/newsroom/press-releases/following-historic-ai-insight-forums-over-the-past-year-leader-schumer-senators-rounds-heinrich-and-young-reveal-bipartisan-roadmap-for-artificial-intelligence-policy-in-the-united-states-senate].

2. *See* Kevin Madigan, *Mid-Year Review: AI Lawsuit Developments in 2024,* COPYRIGHT ALL. (July 25, 2024), https://copyrightalliance.org/ai-lawsuit-developments-2024/ [https://perma.cc/F2KV-KW5R] [https://web.archive.org/web/20250124180219/https://copyrightalliance.org/ai-lawsuit-developments-2024/].

action to enable either collective or compulsory license may be needed in certain circumstances even though direct licensing has already occurred and will no doubt continue.

From 2004 to 2007, I served as copyright counsel to then-House Judiciary Charmain James Sensenbrenner of Wisconsin during which time I led weekly Congressional negotiations over two copyright bills. The first bill was an update to the Section 115 compulsory music licensing system. The legislation, titled the Section 115 Reform Act, was designed to modernize a paper-based licensing system for the digital music services era.[3] The second bill, titled the Orphan Works Act, was a copyright industry-wide bill to address the longstanding orphan works licensing problem on a work-by-work basis.[4] Neither bill was signed into law by Congress, although an updated version of the Section 115 Reform Act later became the now-enacted Music Modernization Act of 2018.[5] One could also say that the Music Modernization Act proved that Congressional staff never leave since I was the lead negotiator on that bill as well. Although none of these three bills had anything directly to do with AI, Congress often builds upon what it has previously debated or enacted as a basis for future legislation. Thus, it is possible that the prior music licensing and orphan works bills could provide some basis for AI licensing legislation.

I. THE SECTION 115 REFORM ACT AND THE MUSIC MODERNIZATION ACT

Since the enactment of the 1976 Copyright Act, Section 115 of Title 17 created a compulsory license for musical works. With the creation of a compulsory license first codified in the 1909 Copyright Act for piano rolls following the *White-Smith Publishing Co. v. Apollo* decision, the scope of the compulsory license was expanded in addition to the length and complexity of Section 115.[6] As the music business became increasingly digital in the late 1990s, it became apparent the Section 115 license was not up to the task. As the Register of Copyrights noted in 2004, "the means to create and provide music to the public has changed radically in the last decade, necessitating changes in the law to protect the rights of copyright owners while at the same time balancing the needs of the users in a digital world.[7] Disputes over what license was needed and how digital service providers could obtain licenses for every musical work ever commercialized meant that a wholesale update to Section 115 was necessary for digital services. After lengthy negotiations, the Section 115 Reform Act was drafted to create a designated

3. Section 115 Reform Act of 2006, H.R. 5553, 109th Cong. (2006).

4. Orphan Works Act of 2006, H.R. 5439, 109th Cong. (2006).

5. Orrin G. Hatch-Bob Goodlatte Music Modernization Act, Pub. L. No.115-264, 132 Stat. 3676 (2018).

6. White-Smith Music Publ'g. Co. v. Apollo Co., 209 U.S. 1, 8 (1908).

7. *Section 115 of the Copyright Act: In Need of an Update?: Hearing Before the Subcomm. on Cts., the Internet, & Intell. Prop. of the H. Comm. on the Judiciary*, 108th Cong. 16 (2004) (statement of Marybeth Peters, Register of Copyrights).

agent system where licensees could obtain licenses for specific works represented by that designated agent along with one general designated agent for works not represented by a designated agent.[8] It was expected that at least some of the designated agents would be existing entities. Finally, some of the works to be represented by the proposed general designated agent were effectively orphan works.

Although numerous interests in the music community came together to negotiate the Section 115 Reform Act, the legislation was never signed into law due to opposition by some music entities dissatisfied with the outcome of the negotiations. Twelve years later, a significantly updated version of the legislation was advanced through Congress into law as the Music Modernization Act. Among the major differences between the earlier and later efforts was the replacement of the competing designated agent system in the Section 115 Reform Act with a single new entity authorized by the Music Modernization Act to be responsible for issuing the licenses along with royalty collection and distribution.[9] This new entity is now known as the Mechanical Licensing Collective based in Nashville, Tennessee.[10]

In the years between the negotiating and drafting of the two bills, the music industry had effectively concluded that a single licensor system was preferable to a multi-licensor system. In 2003, an entity named SoundExchange was created to distribute Section 114 royalties. Since its creation, SoundExchange has distributed over $11 billion in royalties to performers. SoundExchange is the only entity that serves in this role.[11] The generally positive experiences with SoundExchange no doubt influenced the preference for a single entity being responsible for royalty distribution.[12]

II. THE ORPHAN WORKS ACTS OF 2006 AND 2008

An orphan work is commonly defined as a creative work whose copyright status and ownership cannot be determined.[13] Events that cause works to be considered orphan include, but are not limited to, no formal registration with the U.S. Copyright Office or other databases, deceased creators with unclear heirs, and bankrupt companies with no successors.[14] Testimony provided during debate over orphan works legislation

8. H.R. 5553 109th Cong. § 115(e)(9) (2009).

9. *See* Designation of Music Licensing Collective and Digital Licensee Coordinator, 84 Fed. Reg. 32274 (July 8, 2019).

10. *See About Us*, MLC, https://www.themlc.com/our-story [https://perma.cc/C5P7-KHK5] (last visited Feb. 23, 2025).

11. *See About SoundExchange*, SOUNDEXCHANGE, https://www.soundexchange.com/who-we-are/ [https://perma.cc/VJB9-KG62] [https://web.archive.org/web/20250320094838/https://www.soundexchange.com/who-we-are/] (last visited Mar. 27, 2025).

12. Note that two important distinctions between the Mechanical Licensing Collective ("MLC") and SoundExchange are: (1) that the governance structure for the MLC is more explicitly set out in statute in 17 U.S.C. § 115(d)(1)(D) than that of SoundExchange; and (2) 17 U.S.C. § 115(d)(7) requires that the operational costs of the MLC be borne by the licensees, which is unprecedented in the U.S. copyright system. This difference could be subject to further debate should Congress consider legislation related to AI licensing.

13. U.S. COPYRIGHT OFF., REPORT ON ORPHAN WORKS 15 (2006).

14. *Id.* at 23–35.

indicated that in some cases, copyright owners were missing potential revenue from not being able to be identified..[15] However, there are several other societal reasons to encourage the reuse of orphan works such as enabling more accurate historical research and preservation, perhaps funded by sales of copies.

Although orphan works legislation was never signed into law, the discussion of the legislation highlighted the issue of copyright owners having no effective remedies system for smaller value works. Copyright owners with lower licensing fees were faced with an unenviable task. Since it would cost owners more in attorney and court fees to pursue a user who refused to pay, bad faith users could game the system by refusing to pay any license fee. In response to this dilemma, Congress asked the U.S. Copyright Office in October 2011 to study copyright small claims and submit recommendations to Congress.[16] The Copyright Office report became the basis for the Copyright Alternative in Small-Claims Enforcement ("CASE") Act that was signed into law in December 2020 and created the Copyright Claims Board.[17]

III. TRAINING NEEDS OF ARTIFICIAL INTELLIGENCE MODELS

Since the accuracy of an AI model requires training upon the broadest set of accurate works on which that model can be trained, well-known news publications appear to have been the most used as training sources, given the large number of news companies among the initial litigants against AI companies.[18] Along with this litigation, AI companies have also begun to enter into a limited number of licensing arrangements with news publications, such as the agreement struck between OpenAI and the Wall Street Journal and a series of deals with Shutterstock.[19] The reasons for striking such deals are only known to the parties, but might include that the licensing price was right, the guarantee that the training content is authoritative, the litigation risk in not obtaining a license was too high and/or a belief that fair use may not apply for the

15. *Report on Orphan Works by the Copyright Off.: Hearing Before the Subcomm. On Cts., the Internet, and Intell. Prop. of the H. Comm. on the Judiciary*, 109th Cong. 2–3 (2006)*; Orphan Works: Proposals for a Legislative Solution: Hearing Before the Subcomm. On Intell. Prop. of the S. Comm. on the Judiciary*, 109th Cong. 2–5, 105–28 (2006).

16. Letter from Lamar Smith, Chairman, H. Comm. on the Judiciary to Maria A. Pallante, Register of Copyrights & Dir., U.S. Copyright Off. (Oct. 11, 2011), *in* U.S. COPYRIGHT OFF., COPYRIGHT SMALL CLAIMS: REPORT OF THE REGISTER OF COPYRIGHTS (2013).

17. Consolidated Appropriations Act, 2021, Pub. L. No. 116-260, 134 Stat. 1182 (2020).

18. *See* Madigan, *supra* note 2.

19. Alexandra Bruell et al., *OpenAI, WSJ Owner News Corp Strike Content Deal Valued at Over $250 Million*, WALL ST. J. (May 22, 2024), https://www.wsj.com/business/media/openai-news-corp-strike-deal-23f186ba [https://perma.cc/4RBP-YWA5] [https://web.archive.org/web/20250124232016/https://www.wsj.com/business/media/openai-news-corp-strike-deal-23f186ba]; Jeremy Gray, *Shutterstock Made $104 Million Licensing Assets To AI Devs Last Year*, PETAPIXEL (June 4, 2024), https://petapixel.com/2024/06/04/shutterstock-made-104-million-licensing-assets-to-ai-devs-last-year/ [https://perma.cc/7CHD-FWR9] [https://web.archive.org/web/20250124232609/https://petapixel.com/2024/06/04/shutterstock-made-104-million-licensing-assets-to-ai-devs-last-year/].

works available for licensing. A new trade association representing the growing number of licensing entities, the Dataset Providers Alliance, was also created in 2024.[20]

Given what appears to have been an effort by AI companies to obtain as wide a variety of works as possible for AI training, it remains to be seen whether AI models can be trained properly on commercially available databases. It does appear possible, and perhaps likely, that the desire by AI companies to train their models on as many works as possible will exceed the available corpus of works that are readily available to license.

Filling this training gap could require Congress to create authorities for new licensing collective(s) or a compulsory license system to solely address unrepresented works.

IV. USING THE MUSIC MODERNIZATION ACT AND ORPHAN WORKS ACT AS A LEGISLATIVE TEMPLATE

Congress tends to look to past legislation as a template for future legislation, most recently with the Section 115 Reform Act being used as the starting point for negotiation of the Music Modernization Act. Given the voluntary licensing of select copyrighted works by AI companies that has already occurred, it is likely that such voluntary licensing in the free market will continue. However, some number of copyright owners will not be readily identifiable (the orphan works problem) and/or the negotiating costs of either or both parties will exceed the potential licensing revenue for works with low economic value. It is in this commercial space that legislation could be impactful.

Building from the Orphan Works Act of 2006 and 2008, one option would be for Congress to create a system similar to the orphan works bill in which AI companies could use works for training only after conducting a search for the copyright owner and pay a license fee if and when they appear. However, given the negotiating imbalance and negotiating costs, the interests of smaller copyright owners may be better protected with a collective licensing organization and perhaps, even a compulsory license.

V. OBSTACLES IN USING THESE BILLS AS A TEMPLATE

Although there are some historical parallels that might appear similar to those that motivated past policy debates, there are some critical differences that, at a minimum, make it likely that any movement to create any AI related legislation to be several years away.

As noted at the beginning of this Article, the first obstacle to a compulsory license for AI training is the current copyright litigation that is still in its early stages. There has been no final district court decision on the key fair use issue, never mind any

20. DATASET PROVIDERS ALLIANCE, https://www.thedpa.ai/ [https://perma.cc/6UDE-UX3A] [https://web.archive.org/web/20250520140609/https://www.thedpa.ai/] (last visited May 20, 2025).

appellate review. Given the large number of pending fair use cases surrounding AI training, there is a solid chance that the fair use question will ultimately be addressed by the Supreme Court several years from now. It is unlikely that either copyright owners or AI companies will agree to a collective or compulsory licensing system prior to such a ruling.

Contrast this to the policy negotiations over the Section 115 Reform Act and the Music Modernization Act. With a compulsory mechanical license authorized by statute since 1909, there was never a debate as to whether a license was required to cover the uses envisioned by the two bills. The question was simply about which entity (or entities) to pay and how the rate should be set.

The second obstacle is that, unlike the orphan works bill, the two music bills were focused only on one type of work for a specific group of licensees. Should the federal courts ultimately determine that copyright owner permission is required for the use of their works for training, AI companies will need to obtain licenses for a wide variety of types of works, which is more like the issue to have been addressed by the proposed Orphan Works Act that was written to cover all types of works and uses.

A third obstacle is that not all sectors of the copyright world have a single well-organized membership group that already collects royalties on behalf of their members. Such entities would be obvious candidates to operate a collective licensing system for their part of the copyright world. In contrast, there are a large number of photography trade associations who do not currently offer licensing services on behalf of their members, including the Professional Photographers of America, the American Society of Media Photographers, the Photographic Society of America, and American Photographic Artists.[21] If more than one of these photography groups were interested in running a collective licensing system for photographers, should the Copyright Office be authorized to pick one of them?

Even those sectors of the copyright industry that do have organized membership groups often limit who they represent to a smaller subset. As an example, AI companies that might want to license bloggers currently have no licensing body to turn to.[22] The closest such entity is the Authors Guild that offers a standard membership which covers:

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21. *See* PRO. PHOTOGRAPHERS OF AM., https://www.ppa.com/ (last visited Mar. 27, 2025); AM. SOC'Y OF MEDIA PHOTOGRAPHERS, https://www.asmp.org/ [https://perma.cc/7TVN-CDU2] [https://web.archive.org/web/20250320235956/https://www.asmp.org/] (last visited Mar. 27, 2025); PHOTOGRAPHIC SOC'Y OF AM., https://psaphotoworldwide.org/ [https://web.archive.org/web/20250313112541/https://psa-photo.site-ym.com/default.aspx] (last visited Mar. 27, 2025); AM. PHOTOGRAPHIC ARTISTS, https://apanational.org/ [https://perma.cc/4BRN-ZVCM] (last visited Mar. 27, 2025).

22. Although the value of blogger content is unknown, the $60 million in revenue collected by Reddit so far for its licensing efforts suggest that blog content may also have significant value. *See* Anna Tong et al., *Exclusive: Reddit in AI Content Licensing Deal with Google*, REUTERS (Feb. 21, 2024), https://www.reuters.com/technology/reddit-ai-content-licensing-deal-with-google-sources-say-2024-02-22/ [https://perma.cc/85XL-WBC9] [https://web.archive.org/web/20250124232754/https://www.reuters.com/technology/reddit-ai-content-licensing-deal-with-google-sources-say-2024-02-22/].

- Traditionally published authors, translators, and illustrators with at least 1 published book in the U.S.
- Self-published authors who have made at least $5,000 in the past 18 months from their writing
- Freelance writers who have published 3+ pieces or made $5,000 in the past 18 months.[23]

A blogger whose work has been ingested into an AI model may never qualify to be an Authors Guild member under its current requirements.

The final obstacle to legislation is the general lack of legislative activity by Congress. A bill to address the licensing of unrepresented works is unlikely to be able to compete with bigger bills that Congress already has trouble with such as funding federal government operations.

VI. SO IS LEGISLATION IN THIS AREA LIKELY TO BE ENACTED ANYTIME SOON?

It is hard to start negotiations when no one wants to be at the table. However, once the proverbial dust settles from a likely Supreme Court decision in this area in a few years, the numerous interested licensors and licensees will need to reconsider their negotiating positions. If the Supreme Court rules that licenses are rarely, if ever, needed, then the debate is effectively over, unless Congress were to overturn the Court's decision. Given recent Congressional dysfunction, that seems highly unlikely. If the Supreme Court rules that licenses are needed, then the negotiations in the free market, as well as legislative negotiations over what works remain, will ramp up. Although negotiations over the Music Modernization Act alone took several years, the amount of time it took for reform of Section 115 to be completed is longer when one factors in the precursor efforts negotiating the Section 115 Reform Act.

23. *See Membership,* AUTHORS GUILD, https://authorsguild.org/membership/ [https://perma.cc/PX43-LA25] [https://web.archive.org/web/20250124232830/https://authorsguild.org/membership/] (last visited Jan. 24, 2025).

Operational Considerations for Collective Licensing Frameworks in the Music Publishing Industry

*Lidia Kim**

When I think about music, I often end up thinking about how music is being used in the technological sense, and then I think about what all needs to happen for the underlying rightsholders to get paid. For example, when I watch a film or some other audiovisual work that incorporates music, I think about how that music audio was added to enhance the mood by timing it perfectly with a portion of the video footage, thus requiring a synchronization license. These types of licenses are handled individually and typically by the licensing representatives who manage the sound recording rights (e.g., a record label) and the underlying composition rights (e.g., a music publisher).[1] It can be a high-volume operation, but what is clear is what music is used and how music is used, and therefore who to seek a license from and how to compensate for the use.

A large part of my work is to negotiate and issue blanket music publishing licenses that cover the availability for use of full catalogs of music on behalf of the songwriters and rightsholders my company represents. It should not come as a surprise if I were to say that licensing negotiations often center around what is the appropriate value for the use of music (i.e., ample consideration for the rights granted under contract), and that the economics of a deal take the spotlight. After all, the goal is to get music professionals paid for their work.

However, equally important to the success of a deal, and therefore a key component of negotiating a blanket license, is operational—how is the use of music managed, and what are the responsibilities of each of the contracting parties to administer the license and pay the underlying rightsholders. Administering an individual synch license is straightforward—the licensee knows what music will be

* Any views or opinions expressed in this article are my own and do not necessarily represent the views, opinions, or strategies of the Author's employer.

1. How Songwriters, Composers, and Performers Get Paid, U.S. COPYRIGHT OFF. (Jul. 2022), https://www.copyright.gov/music-modernization/educational-materials/musicians-income.pdf [https://perma.cc/VZY8-L4LT] [https://web.archive.org/web/20250417180217/https://www.copyright.gov/music-modernization/educational-materials/musicians-income.pdf]

used and how and relays that to licensor, licensor issues the license, collects payment, and administers the royalties. The thought exercise becomes more complicated with digital service providers (DSPs) whose services and platforms host and make available seemingly limitless quantities of music,[2] where the volume of usage is high[3] or the extent of usage unknowable (or both). To provide a straightforward example here, when I listen to music using a music streaming service application on my phone (e.g., to name a few popular ones in alphabetical order, Amazon Music, Apple Music, Pandora, Spotify, YouTube Music, etc.), I think about how the audio gets delivered from various record labels and distributors through a delivery feed to the DSPs, how music is listened to perhaps through curated playlists or through user selection, how users may pay a subscription to listen to music or they may opt to include advertisements in their music listening experience, or how users might be part of "family" accounts for the discount whether or not related, and how the music plays get matched to the applicable revenue stream, then calculated and paid to songwriters. Digital music consumption is not limited to music streaming services—social media platforms have made it possible for the everyday user to easily create content (with or without music) for sharing. How much content? YouTube is estimated to host 14 billion videos on its site,[4] some of which contains music, and some of which does not.

Thankfully, over time, we have overcome major hurdles in the music business such that most digital service providers (DSPs) using music on their platforms know to and will seek licenses, mainly by entering blanket licenses either directly with music companies or through collective licensing mechanisms. There was a time when DSPs were not so cooperative or willing to collaborate to create a sustainable environment where music may enhance the service user's experience for compensation.[5]

So, now, when I think about music, I think about blanket licenses, and in addition to thinking about the appropriate value for the use of music, I consider the following questions: (1) how does the DSP monitor music usage on their platform (i.e., what data is collected on usage and made available to rightsholders); (2) how does the music get matched to the metadata; (3) what portion (if any) is not being matched and why; and (4) what operational tools and resources do we have readily available or do we need to verify the money collected, determine what's potentially missing, and close the gap (if any) between the two—i.e., how does the money flow from the DSPs to the songwriter's royalty statements? Who bears the responsibility to monitor the use of music, identify the appropriate music stakeholders, and calculate and pay royalties?

2. On average, that daily number in 2024 was 99K. *See* LUMINATE, *Year End Music Industry Report 2024.*

3. 1.3 trillion streams of on-demand streaming audio in Y2023; 1.4 trillion in Y2024. *Id.*

4. Ryan McGrady, *There Are 14 Billion Videos on YouTube*, THE ATLANTIC (Jan. 26, 2024).

5. A&M Records, Inc. v. Napster, Inc., 239 F.3d 1004, 1017 (9th Cir. 2001); Neal Pollack, *Spotify Is the Coolest Music Service You Can't Use*, WIRED, (Dec. 27, 2010), https://www.wired.com/2010/12/mf-spotify/ [https://perma.cc/NVD3-VN4R] [https://web.archive.org/web/20250223084944/https://www.wired.com/2010/12/mf-spotify/].

One of the major hurdles for a DSP to use or enable others to use music is to get the appropriate licenses from the various rightsholders. The creation of the first sound recording of a composition requires permission from the composition rightsholder(s), but, pursuant to Section 115 of the Copyright Act, any subsequent (i.e., cover) recording can be created without permission, and can be reproduced in audio-only format through the compulsory mechanical licensing mechanism, subject to the terms of license and royalty payments as set forth in the applicable regulations.[6] Prior to digital streaming, for physical product (e.g., vinyls, CDs, etc.) or even for downloadable music (e.g., MP3s), the label or record producer would notify its intent to enter a compulsory mechanical license directly from the rightsholder or via a mechanical rights organization (e.g., Harry Fox Agency).[7]

With digital streaming, the existing construct became untenable from an operational perspective. For one, every use of the recording requires a license for the use of the sound recording and a license for the underlying composition. Additionally, it is common business practice for multiple copyright holders to own a fractional interest in a musical composition, as it is common for there to be multiple songwriters contributing to the composition of the song.[8] Regulations were adapted to include a royalty calculation that recognized a mechanical reproduction right in streaming, such right being codified into law formally under the Music Modernization Act in 2019 (MMA), which amended Section 115 of the Copyright Act to include a compulsory blanket licensing mechanism for mechanical reproductions of digital phonorecords.[9] In addition, the Mechanical Licensing Collective (The MLC) was designated as the statutory mechanical licensing collective established by the MMA to administer blanket compulsory digital audio mechanical licenses and royalties in accordance with the relevant regulations.[10] As part of its mandate, the MLC has established and maintains a publicly available musical works database. This provides constructive notice to music users in the United States of the identity of songwriters and publishers associated with a song.

The 2019 Amendment of Section 115 of the Act included a framework that addresses operational concerns arising from the use of music in a digital context, and by law, the DSPs are required to fund the operations of the mechanical licensing collective that administers the blanket licenses under their purview.[11] Looking at the MLC's operating expenditures, the technology services comprised nearly 50% of the

6. Compulsory License for Making and Distributing Physical and Digital Phonorecords of Nondramatic Musical Works, 37 C.F.R. pt. 210 (2014).

7. 17 U.S.C. §115 (as amended in 1996); *History of HFA*, THE HARRY FOX AGENCY, https://www.harryfox.com/history [https://perma.cc/5SGG-YBAH] [https://web.archive.org/web/20250426183524/https://www.harryfox.com/history].

8. 17 U.S.C. §101.

9. Orrin G. Hatch–Bob Goodlatte Music Modernization Act, Pub. L. No. 115-264, 17 U.S.C. § 115.

10. *Digital Royalties & The Digital Music Landscape*, Mechanical Licensing Collective, https://www.themlc.com/digital-music-royalties-landscape [https://perma.cc/VLA6-9KQR] [https://web.archive.org/web/20250426012653/https://www.themlc.com/digital-music-royalties-landscape]

11. 17 U.S.C. § 115(d)(4).

total Start-up Expenditures,[12] and as of the end of 2023, remain approximately 30% of operational expenses.[13] The MLC also reports on an administrative fee ratio "to both allow the public to track its efficiency over time and to allow for easier benchmarking and comparison", which fee ratio is less than 5%.[14] This seems to indicate that there is a benefit in investing in the appropriate technology to operate and administer blanket licenses efficiently. This structure creates consistency across the DSPs in the manner that they monitor and report music usage timely and accurately and encourages the DSPs to collaborate with the music industry to ensure that the licenses are administrable.[15]

In many cases, we cannot rely on modifying the law to cover the operational challenges in music licensing that come with technological advances, and the governing laws were enacted before current technology (and before the DMCA, the Internet) existed. Instead, music rightsholders rely on the DMCA copyright notice and takedown rules and regulations to enforce their rights on digital service providers who may seek protection from liability through the "safe harbor" defense from the same. In those cases, a DSP may be held liable for copyright infringing activities on the service through litigation if the DSPs are not compliant with the DMCA rules. [16]

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12. THE MECHANICAL LICENSING COLLECTIVE, *2021 Annual Report*, https://www.themlc.com/hubfs/Marketing/23856%20The%20MLC%20AR2021%206-30%20REFRESH%20COMBINED.pdf [https://perma.cc/8MVQ-F9DU] [https://web.archive.org/web/20250426013355/https://www.themlc.com/hubfs/Marketing/23856%20The%20MLC%20AR2021%206-30%20REFRESH%20COMBINED.pdf]

13. THE MECHANICAL LICENSING COLLECTIVE, *2023 Annual Report* https://www.themlc.com/hubfs/2023%20MLC%20Annual%20Report.pdf [https://perma.cc/2GNR-6R3G] [https://web.archive.org/web/20250426014628/https://www.themlc.com/hubfs/2023%20MLC%20Annual%20Report.pdf].

14. In comparison, US performing rights societies ASCAP and BMI report that their operating expenses are 12% and 15% of revenue respectively. *Follow the Dollar*, ASCAP, https://www.ascap.com/music-users/follow-the-dollar [https://perma.cc/4FKH-NGD6] [https://web.archive.org/web/20250426015300/https://www.ascap.com/music-users/follow-the-dollar]; Michael O'Neill, *BMI Annual Report 2023*, BMI (Oct. 12, 2023), https://www.bmi.com/pdfs/publications/2023/bmi-annual-report-2023.pdf [https://perma.cc/5A4X-VU67] [https://web.archive.org/web/20250426015704/https://www.bmi.com/pdfs/publications/2023/bmi-annual-report-2023.pdf].

15. Pursuant to the MMA, the MLC is governed by a Board of Directors and three Advisory Committees as set forth in the MMA, including the Operations Advisory Committee (OAC), a committee that includes both DSP and music publisher representatives. The OAC provides a means for collaboration between DSPs and rightsholders to discuss and, where practicable, improve on processes and best practices for identifying and matching music usage to the appropriate music rightsholders. *See Governance,* THE MECHANICAL LICENSING COLLECTIVE, https://www.themlc.com/governance [https://perma.cc/69ND-B43X] [https://web.archive.org/web/20250426020342/https://www.themlc.com/governance] (Note that Author is Chair of OAC).

16. *See* Viacom Intern., Inc. v. YouTube, Inc., 676 F.3d 19, 27–28 (2d Cir. 2012); *NMPA Reaches Resolution of Copyright Infringement Lawsuit Against YouTube Agreement Results in New Licensing Opportunity for Music Publishers*, NAT'L MUSIC PUBLISHERS' ASS'N (Aug. 17, 2011), https://www.nmpa.org/nmpa-reaches-resolution-of-copyright-infringement-lawsuit-against-youtube-agreement-results-in-new-licensing-opportunity-for-music-publishers/ [https://perma.cc/C3HW-QQF5]

Or, if DMCA compliance results in a disruption to service for a large number of users, this may compel the DSPs to cooperate with music rightsholders to come to an agreement to cover the use of music by service users.[17] Social media platforms now offer content creator tools with music libraries which can enhance the user's experience in creating and sharing content for social purposes, but it is also an important tool in rights management—music used from the service's library will contain the appropriate metadata necessary to track and report usage to rightsholders.[18] Music usage not tied to an audio library relies on the technological capability of audio identification tools like Audible Magic or YouTube's proprietary Content ID for content moderation.[19] The extent to which DSPs invest in content moderation technology robust enough to comprehensively monitor the widespread use of music in user-generated content seems to depend on the service offering and the recognition of the value in using music to enhance the user experience and drive consumption on the platform. Unfortunately, without the cooperation from the DSPs, there is no way for music creators and rightsholders to ensure that music is being used with proper authorization, compensation and attribution.

When I think about music, I think about the way in which a stream of music generates revenue and gets paid. I think about how licensing frameworks are most successful when the burden of responsibility of music rights management is shared between those who create music and those who commercially benefit from it. There is no settled licensing framework for the use of music in the machine learning context in the creative industry. It seems unlikely that such a framework can be modeled for industry-wide implementation without settled law (i.e., a legal determination on what will require a license and/or whether any such use is "fair use"), especially as it pertains to developing and training machine learning models (MLMs) using publicly available data, including copyright-protected music and the use of copies of such

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[https://web.archive.org/web/20250426021128/https://www.nmpa.org/nmpa-reaches-resolution-of-copyright-infringement-lawsuit-against-youtube-agreement-results-in-new-licensing-opportunity-for-music-publishers/].

17. Jay Peters, *Twitch warns streamers another wave of copyright strikes is coming*, THE VERGE (May 28, 2021), https://www.theverge.com/2021/5/28/22458481/twitch-streamers-dmca-takedown-wave-warning-notice [https://perma.cc/M47C-M5QM] [https://web.archive.org/web/20250426164451/https://www.theverge.com/2021/5/28/22458481/twitch-streamers-dmca-takedown-wave-warning-notice]; *NMPA and Twitch Announce Agreement*, NAT'L MUSIC PUBLISHERS' ASS'N (Sept. 21, 2021), https://www.nmpa.org/nmpa-and-twitch-announce-agreement/ [https://perma.cc/DB62-NFXH] [https://web.archive.org/web/20250426165146/https://www.nmpa.org/nmpa-and-twitch-announce-agreement/].

18. See, e.g., *Company*, AUDIBLE MAGIC, https://www.audiblemagic.com/company/ [https://perma.cc/7H3E-NBDU] [https://web.archive.org/web/20250426165747/https://www.audiblemagic.com/company/].

19. AUDIBLE MAGIC, https://www.audiblemagic.com/ [https://perma.cc/DB46-K8ML] [https://web.archive.org/web/20250426170135/https://www.audiblemagic.com/]; *Overview of YouTube rights management*, YOUTUBE, https://support.google.com/youtube/answer/4597810?hl=en [https://perma.cc/Y328-8JMV] [https://web.archive.org/web/20250426170730/https://support.google.com/youtube/answer/4597810?hl=en].

music to generate output via machine learning models (MLMs). Rightsholders and technology services are collaborating for a solution to the attribution problem. To what extent MLMs will take technological responsibility for music rights management is yet to be determined.

Extended Collective Licensing for Use of Copyrighted Works for Machine Learning

*Johan Axhamn**

INTRODUCTION

The fast development of generative artificial intelligence ("AI") services—such as ChatGPT, Midjourney, Dall-E—have within a short period of time gained immense uptake and popularity.[1] At the same time, such services have given rise to fundamental challenges from a copyright perspective. Court proceedings have been initiated in many jurisdictions on the compatibility of such services with copyright legislation.

Some scholars see the development of AI as a gradual process, to be dealt with, like earlier technologies, through incremental adaptation of the copyright framework.[2] For others, AI represents so fundamental an innovation—a disruptive technology,[3] a game changer,[4] an apocalypse[5]—that it threatens to shake copyright law to its very foundations. The *Economist* has described the challenges as a "battle royal."[6]

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1. *See How AI Will Divide the Best from the Rest*, ECONOMIST (Feb. 13, 2025), https://www.economist.com/finance-and-economics/2025/02/13/how-ai-will-divide-the-best-from-the-rest [https://perma.cc/R2F9-XVQW].

2. *See* Jane C. Ginsburg & Luke Ali Budiardjo, *Authors and Machines*, 34 BERKELEY TECH. L.J. (2019).

3. *See* WORLD INTELL. PROP. ORG., WIPO TECHNOLOGY TRENDS 2019: ARTIFICIAL INTELLIGENCE 25 (2019).

4. *See* ANASTASIYA KISELEVA, 4IP COUNCIL, *WHAT IS ARTIFICIAL INTELLIGENCE AND WHY DOES IT MATTER FOR COPYRIGHT* (2019).

5. *See* Hannah Parkinson, *AI Can Write Just Like Me. Brace for the Robot Apocalypse*, GUARDIAN (Feb. 15, 2019), https://www.theguardian.com/commentisfree/2019/feb/15/ai-write-robot-openai-gpt2-elon-musk [https://perma.cc/MA29-UQST] [https://web.archive.org/web/20250125004651/https://www.theguardian.com/commentisfree/2019/feb/15/ai-write-robot-openai-gpt2-elon-musk].

6. *See* Schumpeter, *A Battle Royal Is Brewing over Copyright and AI*, ECONOMIST (Mar. 15, 2023), https://www.economist.com/business/2023/03/15/a-battle-royal-is-brewing-over-copyright-and-ai [https://perma.cc/659T-C44U] [https://web.archive.org/web/20250109043322/https://www.economist.com/business/2023/03/15/a-battle-royal-is-brewing-over-copyright-and-ai]. Merriam-Webster defines a "battle royal" as "a fight participated in by more than two combatants . . . especially one in which the last fighter in the ring or the

These technological and legal developments—and related economic consequences—have, in turn, raised political and scholarly interest in the issues at stake. For example, the World Intellectual Property Organization ("WIPO") has dedicated studies and seminars to the topic,[7] the Association Littéraire et Artistique Internationale ("ALAI") 2023 Congress in Paris focused on AI and copyright,[8] and several jurisdictions have or are considering specific provisions in copyright law of relevance to this emerging technology.[9] Entire symposia, including this one—the Kernochan Center's 2024 annual symposium *The Past, Present and Future of Copyright Licensing*[10]—are dedicated to related copyright issues.[11]

A copyright-related question that has gained much attention is whether the output generated by generative AI services can obtain copyright protection,[12] and if so, who the author is.[13] Another question, which is the focus of this contribution, is whether

last fighter standing is declared the winner." *Battle Royal*, MERRIAM-WEBSTER, https://www.merriam-webster.com/dictionary/battle%20royale [https://perma.cc/L493-QK6J] [https://web.archive.org/web/20250211225839/https://www.merriam-webster.com/dictionary/battle%20royale] (last visited Feb. 11, 2025).

7. *See Artificial Intelligence and Intellectual Property*, WORLD INTELL. PROP. ORG., https://www.wipo.int/about-ip/en/frontier_technologies/ai_and_ip.html [https://web.archive.org/web/20250115085036/https://www.wipo.int/about-ip/en/frontier_technologies/ai_and_ip.html] (last visited Jan. 15, 2025). Recently, issues related to Copyright and Artificial Intelligence have been brought on the agenda of the WIPO Standing Committee on Copyright and Related Rights ("SCCR"). *See* World Intell. Prop. Org. [WIPO], *Summary by the Chair*, SCCR/44/SUMMARY (Nov. 8, 2023).

8. *See* ASSOCIATION LITTÉRAIRE ET ARTISTIQUE INTERNATIONALE, https://alai-paris2023.org/ [https://perma.cc/RW67-6N64] [https://web.archive.org/web/20250125010728/https://www.alai.org/en/congresses-and-study-days/] (last visited Jan. 24, 2025).

9. I was invited as a speaker to a public hearing organized by the Swedish Parliament's Committee on Cultural Affairs, on the topic of *AI and Copyright—Consequences for the Cultural Sectors*, held on April 18, 2024. *See also Copyright and Artificial Intelligence*, COPYRIGHT.GOV, https://www.copyright.gov/ai/ [https://perma.cc/63XX-RSHR] [https://web.archive.org/web/20250117225210/https://www.copyright.gov/ai/] (last visited Feb. 9, 2025); *Copyright and AI: Consultation*, GOV.UK, https://www.gov.uk/government/consultations/copyright-and-artificial-intelligence/copyright-and-artificial-intelligence#c-our-proposed-approach [https://perma.cc/4CBV-PLUK] [https://web.archive.org/web/20250212031801/https://www.gov.uk/government/consultations/copyright-and-artificial-intelligence/copyright-and-artificial-intelligence#c-our-proposed-approach] (Dec. 17, 2024); EUROPEAN COMMISSION, TRENDS AND DEVELOPMENTS IN ARTIFICIAL INTELLIGENCE: CHALLENGES TO THE INTELLECTUAL PROPERTY RIGHTS FRAMEWORK (2020).

10. This Article is based on the Author's presentation at this Symposium, as part of a panel on the topic of "Collective Licensing and Antitrust Concerns."

11. At the same time as this Symposium, the biannual Nordic Copyright Symposium was held in Copenhagen on the topic "Copyright and AI." Several seminars and other activities organized by the Swedish Copyright Society (the Swedish ALAI Group), have focused on AI-related topics. In addition, on September 12–13, the National Library of Sweden in collaboration with *inter alia* the Swedish Intellectual Property Office ("PRV"), organized a conference titled "Digital Knowledge—The Library and Copyright in a Global Digital Economy."

12. *See, e.g.*, U.S. COPYRIGHT OFF., COPYRIGHT AND ARTIFICIAL INTELLIGENCE, PART 2: COPYRIGHTABILITY (2025).

13. *See, e.g.*, Johan Axhamn, *Copyright and Artificial Intelligence—With a Focus on the Area of Music*, *in* FESTSKRIFT TIL JØRGEN BLOMQVIST [FESTSCHRIFT FOR JØRGEN BLOMQVIST] 33, 33–86 (2021).

the use of copyright protected content as part of the "training" of the AI—i.e., machine learning—constitutes copyright-relevant use, i.e., falls within the rights protected by copyright.[14] And if so, whether the so-called extended collective licensing model could be a relevant vehicle (or mechanism) for clearing rights for such use. Related to aspects of extended collective licensing, issues have been raised around whether there are challenges associated with competition law that need to be taken into account.

Against this backdrop, this Article is structured as follows. Section I, deals with machine learning and copyright, i.e., whether and to what extent the use of copyright-protected content as part of the "training" of the AI (machine learning) constitutes copyright-relevant use. Section II describes and discusses whether the extended collective licensing model could be a relevant mechanism for such use. Section III focuses on some challenges from a competition law perspective, and also relates to some relevant provisions in the EU directive on collective rights management. Section IV sets out some concluding remarks.

I. MACHINE LEARNING AND COPYRIGHT

In general, machine learning is commonly seen as a subset of AI and involves identifying patterns in preexisting data, which can then be applied to new data.[15] The technique is based on algorithms that are fed large quantities of data (big data), so-called training data, in order to comprehend connections and correlations.[16]

From a copyright perspective, the question has been raised whether machine learning entails a use of copyright protected content that is "copyright relevant," i.e., whether such use falls within the scope of the exclusive rights provided to authors and other right holders in copyright law. More specifically, the question is whether such use constitutes a "reproduction" from a copyright perspective.[17]

The international norms in this regard are not entirely clear. Article 9 of the Berne Convention sets out a broad scope of the right of reproduction, covering reproductions "in any manner or form."[18] However, it is not entirely clear whether the right of

14. *See, e.g.*, U.S. COPYRIGHT OFF., COPYRIGHT AND ARTIFICIAL INTELLIGENCE, PART 1: DIGITAL REPLICAS (2024). *See also* Martin Kretschmer, Thomas Margoni, & Pinar Oruç, *Copyright Law and the Lifecycle of Machine Learning Models*, 55 INT'L REV. INTELL. PROP. & COMPETITION L. 110–38 (2024).

15. *See, e.g.*, *Communication from the European Commission: Artificial Intelligence for Europe*, COM (2018) 237 final (Apr. 25, 2018).

16. *See, e.g.*, Will Knight, *The Dark Secret at the Heart of AI*, MIT TECH. REV. (Apr. 11, 2017), https://www.technologyreview.com/2017/04/11/5113/the-dark-secret-at-the-heart-of-ai/ [https://perma.cc/7LZ5-7CW3] [https://web.archive.org/web/20250209064205/https://www.technologyreview.com/2017/04/11/5113/the-dark-secret-at-the-heart-of-ai/].

17. *See* Axhamn, *supra* note 11; U.S. COPYRIGHT OFF., *supra* note 14; Kretschmer et al., *supra* note 14. *See also* Rossana Ducato & Alain Strowel, *Ensuring Text and Data Mining: Remaining Issues with the EU Copyright Exceptions and Possible Ways Out*, 43 EUR. INTELL. PROP. L. REV. 322 (2021); Martin Senftleben, *Ensuring Text and Data Mining: Remaining Issues with the EU Copyright Exceptions and Possible Ways Out*, 53 INT'L REV. INTELL. PROP. & COMPETITION L. 1477–1505 (2022).

18. Berne Convention for the Protection of Literary and Artistic Works art. 9, Sept. 28, 1979, S. TREATY DOC. NO. 99-27 (1986).

reproduction, as set out in the Berne Convention, covers "temporary forms of reproduction," i.e., forms of reproduction that have a limited existence in time—for instance, because they only exist in digital form in the working memory of a computer or other digital equipment. If there are any reproductions carried out during machine learning, then these reproductions are temporary.

The question of whether temporary reproductions should fall within the exclusive rights is a debated and controversial copyright issue.[19] In an analog environment, mere enjoyment or consumption of a work—such as watching or listening to it—does not constitute a copyright-relevant use. In a digital environment, however, the situation is different, as every use of a work results in the creation of temporary reproductions. This can occur both in the servers and routers involved in transmitting the work via the Internet and in the RAM of individual users' computers during activities such as web browsing, display on a screen, or playback of a work on a computer.[20]

The question whether Article 9 of the Berne Convention covers temporary forms of reproduction was subject to intensive discussions during the 1996 diplomatic conference on the adoption of the WIPO Copyright Treaty ("WCT") and the WIPO Performances and Phonograms Treaty ("WPPT")—the so-called Internet Treaties.[21] Article 1(4) of the WCT, which constitutes a so-called special agreement in accordance with Article 20 of the Berne Convention, holds that "Contracting Parties shall comply with Articles 1 to 21 and the Appendix of the Berne Convention."[22] In addition, so-called Agreed Statements to this Article hold that:

> The reproduction right, as set out in Article 9 of the Berne Convention, and the exceptions permitted thereunder, fully apply in the digital environment, in particular to the use of works in digital form. It is understood that the storage of a protected work in digital form in an electronic medium constitutes a reproduction within the meaning of Article 9 of the Berne Convention.[23]

The Agreed Statements do not provide a clear answer as to whether temporary forms of reproduction are relevant under international copyright law, as they leave open what is meant by the term "storage."[24] At the same time, it is clear that the WCT,

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19. *See* Ole-Andreas Rognstad, *Restructuring the Economic Rights in Copyright—Some Reflections on an 'Alternative Model'*, 62 J. COPYRIGHT SOC'Y 503, 535 (2015).

20. *See* SILKE VON LEWINSKI, INTERNATIONAL COPYRIGHT LAW AND POLICY ¶ 17.52 (2008); Johan Axhamn, *Tillfälliga framställningar av exemplar och rättsligt skydd för åtkomstspärrar i digital miljö* [*Temporary Reproductions of Copies and Legal Protection for Access Controls in the Digital Environment*], *in* VÄNBOK TILL CLAES SANDGREN [FESTSCHRIFT FOR CLAES SANDGREN] 13 (Madell et al. eds., 2011) (Swed.).

21. *See WIPO Internet Treaties*, WIPO, https://www.wipo.int/en/web/copyright/activities/internet_treaties [https://perma.cc/S357-QMVY] [https://web.archive.org/web/20250401134326/https://www.wipo.int/en/web/copyright/activities/internet_treaties] (last visited Apr. 1, 2025).

22. WIPO Copyright Treaty (WCT) art. 1(4), Dec. 20, 1996, 2186 U.N.T.S. 121.

23. WIPO Copyright Treaty (WCT) Agreed Statements, Dec. 20, 1996, 2186 U.N.T.S. 121, 160.

24. *See* WIPO, 2 RECORDS OF THE DIPLOMATIC CONFERENCE ON CERTAIN COPYRIGHT AND NEIGHBORING RIGHTS QUESTIONS ¶ 1086 (1996). *See also* SAM RICKETSON & JANE GINSBURG, INTERNATIONAL COPYRIGHT AND NEIGHBOURING RIGHTS: THE BERNE CONVENTION AND BEYOND ¶¶ 11.74–.75 (2006);

which constitutes a so-called special agreement in accordance with Article 20 of the Berne Convention, cannot impose binding limitations on the obligations arising from the Berne Convention.[25]

The wording and drafting of the second sentence of these Agreed Statements was highly contentious during the diplomatic conference in 1996 and even subject to a vote[26]—which is very rare in the WIPO context.[27] The reason for this is that it was understood that the question of whether to include temporary forms of reproduction in the authors' exclusive rights was related to underlying justifications for copyright protection.[28] The (then) European Communities, which in principle favored a strong protection for authors, were supportive of including temporary forms within the scope of the exclusive right of reproduction.[29] On the other hand, the United States and others favoring a more utilitarian perspective on copyright, opposed the inclusion of temporary forms of reproduction in the exclusive right.[30]

When implementing the WCT and WPPT into EU legislation, the EU opted to make it clear that the right of reproduction also includes temporary forms of reproduction. This is reflected in Article 2 of Directive 2001/29.[31] This article holds that "Member States shall provide for the exclusive right to authorise or prohibit direct or indirect, temporary or permanent reproduction by any means and in any form, in whole or in part . . . ."[32] It is held in Recital 21 to the Directive that "[a] broad definition of these acts is needed to ensure legal certainty within the internal market."[33] In addition, Recital 9 stresses that "[a]ny harmonisation of copyright and related rights must take as a basis a high level of protection, since such rights are crucial to intellectual creation."[34]

The right of reproduction, as recognized within the EU, is thus quite broad. To alleviate this, also taking into account that some temporary forms of reproduction are necessary for the functioning of digital equipment, some temporary forms of

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MICHEL WALTER & SILKE VON LEWINSKI, EUROPEAN COPYRIGHT LAW: A COMMENTARY ¶¶ 11.0.33, 11.5.12 (2010); VON LEWINSKI, *supra* note 20, ¶¶ 5.118,17.57–.58.

25. *See, e.g.*, RICKETSON & GINSBURG, *supra* note 24, ¶¶ 11.27, 11.69–.75, 19.56; VON LEWINSKI, *supra* note 20, ¶¶ 5.118, 17.52–.58 (2008).

26. *See* WIPO, *supra* note 24, ¶¶ 1083 *et seq.*

27. *See* Holger Hestermeyer, *World Intellectual Property Organization*, *in* ELGAR ENCYCLOPEDIA OF INTERNATIONAL ECONOMIC LAW (Krista Nadakavukaren Schefer & Thomas Cottier eds., 2025).

28. *See* WIPO, *supra* note 24, ¶¶ 247–324, 648, 877–81, 909–26, 1046–1152. For a discussion, see RICKETSON & GINSBURG, *supra* note 24, ¶¶ 11.27, 11.69–.75, 19.56; VON LEWINSKI, *supra* note 20, ¶¶ 5.118, 17.52–.58; *The EC Legal Advisory Board's Reply to the Green Paper on Copyright and Related Rights in the Information Society*, 12 COMPUT. L. & SEC. REP. 143, 148 (1996); Johan Axhamn, *EU-domstolen tolkar originalitetskriteriet och inskränkningen till förmån för vissa tillfälliga former av mångfaldigande* [*The Court of Justice of the European Union Interprets the Originality Requirement and the Exception in Favor of Certain Temporary Forms of Reproduction*], 4 NORDIC INTELL. PROP. L. REV. 339, 352 (2010) (Swed.).

29. See WIPO, *supra* note 24, ¶¶ 253, 341–48.

30. *See id.*, ¶¶ 260–62, 1047, 1092.

31. Directive 2001/29/EC of the European Parliament and of the Council on the Harmonisation of Certain Aspects of Copyright and Related Rights in the Information Society, art. 2, 2001 O.J. (L 167).

32. *Id.*

33. *Id.*, recital (21).

34. *Id.*, recital (9).

reproduction are removed from the scope of Article 2. Article 5(1) of Directive 2001/29 includes a mandatory limitation on certain forms of temporary reproductions, "which are transient or incidental and an integral and essential part of a technological process and whose sole purpose is to enable: (a) a transmission in a network between third parties by an intermediary, or (b) a lawful use[,] of a work . . . and which [has] no independent economic significance."[35] The rationale for this mandatory limitation is set out in Recital 33 to the Directive, based on which one can draw the conclusion that the limitation takes aim at "caching" as part of transmissions of copyright content in digital networks (such as the internet), and internet "browsing" and similar types of uses.[36]

With the development of AI services and related techniques of machine learning, it has been deemed that Article 5(1) is probably not relevant for the temporary reproductions carried out as part of a machine learning process. This is because machine learning does not relate to either points "a" or "b" in Article 5(1).[37]

The same technological developments, related to big data, that have led to the establishment of AI services, have also enabled automated computational analysis of information in digital form, such as text, sounds, images, or data. Against this backdrop, and provided the need for increased legal certainty in the context of "innovative text and data mining research tools,"[38] the Commission proposed in 2016 that the Directive on Copyright in the Digital Single Market should include a limitation for this purpose.[39] Article 3 of the proposal thus sets out the following:

> 1. Member States shall provide for an exception to the rights provided for in Article 2 of Directive 2001/29/EC, Articles 5(a) and 7(1) of Directive 96/9/EC and Article 11(1) of this Directive for reproductions and extractions made by research organisations in order to carry out text and data mining of works or other subject-matter to which they have lawful access for the purposes of scientific research.
>
> 2. Any contractual provision contrary to the exception provided for in paragraph 1 shall be unenforceable.
>
> 3. Rightholders shall be allowed to apply measures to ensure the security and integrity of the networks and databases where the works or other subject-matter are hosted. Such measures shall not go beyond what is necessary to achieve that objective.
>
> 4. Member States shall encourage rightholders and research organisations to define commonly-agreed best practices concerning the application of the measures referred to in paragraph 3.[40]

35. *Id.*, art. 5(1).

36. *Id.*, recital (33).

37. *See, e.g.*, Axhamn, *supra* note 11; *cf. Proposal for a Directive of the European Parliament and of the Council on Copyright in the Digital Single Market*, at 14, COM (2016) 593 final (Sept. 14, 2016) [hereinafter, Proposal for Directive on Copyright].

38. *Proposal for Directive on Copyright, supra* note 37, at 2.

39. *Id.* at 2–4.

40. *Id.* at 24.

The proposed Article 3 was intended to allow uses for commercial scientific research purposes, but limited the benefit of the limitation to some beneficiaries.[41] The Commission had considered other options—such as self-regulation initiatives from the industry, a mandatory limitation for non-commercial scientific research purposes, and a general provision on text and data mining not limited to specific beneficiaries—but decided on this more targeted option.[42] This selected option was "deemed to be the most proportionate one."[43]

With only a few amendments, this limitation for specific text and data mining ("TDM") activities related to research became part of the adopted directive. However, of interest here is that the final adopted Digital Single Market ("DSM") Directive,[44] also includes a more general limitation on TDM set out in Article 4 of the Directive. This article sets out the following:

> 1. Member States shall provide for an exception or limitation to the rights provided for in Article 5(a) and Article 7(1) of Directive 96/9/EC, Article 2 of Directive 2001/29/EC, Article 4(1)(a) and (b) of Directive 2009/24/EC and Article 15(1) of this Directive for reproductions and extractions of lawfully accessible works and other subject matter for the purposes of text and data mining.
>
> 2. Reproductions and extractions made pursuant to paragraph 1 may be retained for as long as is necessary for the purposes of text and data mining.
>
> 3. The exception or limitation provided for in paragraph 1 shall apply on condition that the use of works and other subject matter referred to in that paragraph has not been expressly reserved by their rightholders in an appropriate manner, such as machine-readable means in the case of content made publicly available online.
>
> 4. This Article shall not affect the application of Article 3 of this Directive.[45]

The notion of "text and data mining" is defined is Article 2(2) of the DSM Directive as "any automated analytical technique aimed at analysing text and data in digital form in order to generate information which includes but is not limited to patterns, trends and correlations[.]"[46]

The rationales for Article 4, which was added to the Directive during the negotiations in the Council and the Parliament, are set out in Recital 18 in the preamble.[47] It is explained there that in addition to their significance in the context of scientific research, text and data mining techniques are widely used both by private and public entities to analyze large amounts of data in different areas of life and for various

41. *Id.* at 8.
42. *Id.*
43. *Id.*
44. Directive (EU) 2019/790 of the European Parliament and of the Council of 17 April 2019 on Copyright and Related Rights in the Digital Single Market and Amending Directives 96/9/EC and 2001/29/EC, 2019 O.J. (L 130) 92 [hereinafter, DSM Directive].
45. *Id.*, art. 4.
46. *Id.*, art. 2(2).
47. *Id.*, recital (18).

purposes, including for government services, complex business decisions and the development of new applications or technologies. It is further stressed in the same recital that right holders should remain able to license the uses of their works or other subject matter falling outside the scope of the mandatory exception for text and data mining for the purposes of scientific research, i.e., the limitation set out in Article 3 of the Directive. Finally, it is stressed in this recital that consideration should be given to the fact that users of text and data mining could be faced with legal uncertainty as to whether reproductions and extractions made for the purposes of text and data mining can be carried out on lawfully accessed works or other subject matter. Thus, in order to provide for more legal certainty in such cases and to encourage innovation also in the private sector, the Directive provides for a more general limitation for reproductions and extractions of works or other subject matter, for the purposes of text and data mining.

Following the adoption of the DSM Directive, the question has been raised whether the general TDM limitation in Article 4 is applicable and relevant for the use of copyrighted works as part of a machine learning process. Several different views have been expressed, to a large extent related to the underlying interests that are at stake. At one extreme, it has been submitted that machine learning activities do not even entail copyright relevant reproductions.[48]

In addition, as indicated above, the international norms do not provide a final answer to whether temporary forms of reproduction fall within the right of reproduction as recognized in the Berne Convention and the WCT. However, it seems reasonable to conclude that at least EU copyright legislation—with a broad right of reproduction also covering temporary forms of reproduction—includes machine learning activities.[49] The machine learning technology is, however, still under development, and there might be circumstances where such activities do not entail a copyright-relevant (temporary) reproduction.

If we take as a starting point that machine learning activities do entail relevant reproductions, the question arises whether such reproductions fall within the scope of the general TDM limitation in Article 4 of the DSM Directive.[50] It may be surprising that the answer to this question is not settled. A main reason for this is that this article was not part of the Commission's initial proposal. The reasons and rationales for this limitation and its intended scope are thus not clear. We can only rely on what is stated in the preamble to the Directive.

In any case, for Article 4 to apply, certain preconditions need to be fulfilled. As a starting point, Article 4(1) holds that the limitation is applicable only to "lawfully

48. *See* TOBIAS KEMPAS, ARTIFICIELL INTELLIGENS OCH IMMATERIALRÄTT: I SVERIGE OCH EU [ARTIFICIAL INTELLIGENCE AND INTELLECTUAL PROPERTY LAW: IN SWEDEN AND THE EU] 171 *et. seq.* (2023) (Swed.).

49. *See* JEAN-PAUL TRAILLE ET AL., STUDY ON THE LEGAL FRAMEWORK OF TEXT AND DATA MINING (TDM) 31, 40 (2014).

50. *See* Tim Dornis, *The Training of Generative AI Is Not Text and Data Mining*, EUR. INTELL. PROP. REV., (forthcoming 2025).

accessible" works, etc.[51] Lawful access refers to access granted with the consent of the rights holder or based on a limitation to the exclusive right. It is therefore possible to obtain lawful access to a work, for example, by purchasing a copy of it or by acquiring a license, such as a subscription, that grants the right to use the work. Similarly, anyone who has access to a work based on a limitation to copyright law also has lawful access to the work. However, limitations may set out conditions that regulate how the work may be used. In such cases, these conditions must be observed. The requirement for lawful access also means that copies may only be made from a lawful source.[52]

In addition, it is stated in Article 4(3) that the general limitation for the purposes of TDM shall apply on condition that the use of works and other subject matter referred to in that paragraph has not been expressly reserved ("opt out") by their right holders in an appropriate manner, such as machine-readable means in the case of content made publicly available online.[53] Such an opt-out may be made through a unilateral declaration or in an agreement and must pertain to text and data mining. The reservation must be explicit and communicated in such a way that users can reasonably be expected to take note of it. For works made available online, it is likely required that the rights holder reserves the right through machine-readable methods, i.e., in a format that can be read without the need for manual review—e.g., metadata and terms and conditions of a website or a service.

Following the adoption of the DSM Directive and its implementation into the national copyright legislation of the EU Member States, the general understanding on the market seems to be that right holders and their organizations should now be prepared to opt out unless they have already done so.[54] However, as indicated above, many organizations representing authors seem to have been caught by surprise by the implication and potential broad scope of the general TDM limitation.[55] Thus, it seems as if almost no categories of authors had opted out at the time when the DSM Directive was supposed to have been implemented in the EU Member States. In any case, it seems reasonable that organizations representing authors should develop standards for opting out, preferably together with developers of generative AI services or organizations representing such services.[56]

51. DSM Directive, *supra* note 44, art. 4(1).

52. *See also id.*, recital (18) .

53. *Id.*, art. 4(3).

54. *See* Gina Maria Ziaja, *The Text and Data Mining Opt-Out in Article 4(3) CDSMD: Adequate Veto Right for Rightholders or a Suffocating Blanket for European Artificial Intelligence Innovations?*, 19 J. INTELL. PROP. LAW & PRAC., 453, 453–59 (2024).

55. *See* EUR. COPYRIGHT SOC'Y, COPYRIGHT AND GENERATIVE AI: OPINION OF THE EUROPEAN COPYRIGHT SOCIETY (2025), https://europeancopyrightsociety.org/wp-content/uploads/2025/02/ecs_opinion_genai_january2025.pdf [https://perma.cc/M2TE-6U9E] [https://web.archive.org/web/20250305192011/https://europeancopyrightsociety.org/wp-content/uploads/2025/02/ecs_opinion_genai_january2025.pdf].

56. This was also one of the main takeaways from this Author's presentation before the Swedish Parliament's Committee on Cultural Affairs in April 2024.

The limitations concerning TDM have been impacted by subsequent legal developments within the EU. During 2024, the so-called AI Act was adopted.[57] This Act, which is an EU Regulation, is a highly detailed regulatory framework with a focus on "high-risk" AI. The purpose of the AI Act is to improve the functioning of the EU internal market and promote the uptake of human-centric and trustworthy AI, while ensuring a high level of protection of health, safety, fundamental rights enshrined in the EU Charter of Fundamental Rights,[58] including democracy, the rule of law and environmental protection, against the harmful effects of AI systems in the Union and supporting innovation.[59]

However, against the backdrop of the development of generative AI services during the last few years, Article 53 of and Recitals 104 to 109 in the preamble to the adopted AI Act also includes some provisions that are relevant from a copyright perspective and which supplement the TDM limitations in the DSM Directive. These provisions set out norms on transparency regarding works used as training data. The transparency requirement does not, however, set out requirements on a work-by-work basis but rather on a more general level—"a sufficiently detailed summary about the content used for training of the general-purpose AI model." This summary should be accordance with a "template" that is to be provided by a new body within the European Commission—the so-called AI Office.[60] The Office has already made available a first outline of such a template.[61]

The AI Act also includes requirements that developers of generative AI systems should be compatible with relevant copyright legislation. More specifically, the AI Act includes references to the general TDM limitation in the DSM Directive, including that the developers of AI should follow any relevant "opt out" by right holders. This "linkage" between the AI Act and the TDM limitation has been much criticized by right holders, as this implies that the TDM limitation is applicable in situations involving

57. *See* Regulation (EU) 2024/1689 of the European Parliament and of the Council of 13 June 2024 Laying Down Harmonised Rules on Artificial Intelligence and Amending Regulations (EC) No 300/2008, (EU) No 167/2013, (EU) No 168/2013, (EU) 2018/858, (EU) 2018/1139 and (EU) 2019/2144 and Directives 2014/90/EU, (EU) 2016/797 and (EU) 2020/1828 (Artificial Intelligence Act), 2024 O.J. (L. 1689) [hereinafter, AI Act].

58. See Charter of Fundamental Rights of the European Union, 2012 O.J. (C 326) 391.

59. *See* AI Act, *supra* note 57, art. 1.

60. *See European AI Office*, EUR. COMM'N, https://digital-strategy.ec.europa.eu/en/policies/ai-office [https://perma.cc/RRF3-XCV5] [https://web.archive.org/web/20250411191634/https://digital-strategy.ec.europa.eu/en/policies/ai-office] (last visited Apr. 11, 2025).

61. *See* EUR. AI OFF., CODE OF PRACTICE FOR GENERAL-PURPOSE AI: TEMPLATE FOR SUMMARY OF TRAINING DATA, WORKING GROUP 1—COPYRIGHT-RELATED RULES (MEETING OF JAN. 17, 2025), https://openfuture.eu/wp-content/uploads/2025/01/250117ai-office-template-presentation.pdf [https://perma.cc/59ZK-L4AV] [https://web.archive.org/web/20250406033849/https://openfuture.eu/wp-content/uploads/2025/01/250117ai-office-template-presentation.pdf].

machine learning.[62] Right holders and their organizations (CMOs) have to a large extent favored licensing solutions, such as extended collective licensing.[63]

In summary, the current situation in the EU is that machine learning seems to require a reproduction—i.e., machine learning constitutes a copyright relevant use which the right holders as a starting point can control, unless a limitation to copyright is applicable. The recently introduced general limitation for TDM in Article 4 of the DSM Directive seems to be applicable to (*inter alia*) machine learning situations, at least in the light of the recently adopted EU AI Act. However, this limitation provides the right holders with a possibility to opt out of the limitation. It is likely that organizations representing right holders will develop standards for such opt-outs, possibly together with developers of generative AI systems.[64]

If the right holders opt out of the general TDM limitation, we will end up in a situation where there is likely a strong demand for the use of existing copyright protected content as training data, but where such use requires the consent of the right holders—or some legislative intervention. Several proposals have been discussed, e.g., in the legal literature. Some scholars have even gone so far as proposing that the current general TDM limitation in Article 4 should be amended by a removal of the possibility of opting out—i.e., a removal of the third paragraph in this article.[65] It has been suggested that such a removal could be combined with the introduction of a right to remuneration, similar to the systems of private copying levies in some European countries.[66] Other scholars have suggested that the limitation for TDM is restructured as a compulsory license or similar.[67] Another alternative, which this Author suggests could be a fair and balanced mechanism for obtaining the necessary consents, is the so-

62. *See CISAC Backs the Joint Letter of Creators and Rightholders Organisations*, CISAC, https://www.cisac.org/Newsroom/articles/cisac-backs-joint-letter-creators-and-rightholders-organisations [https://perma.cc/VT4G-F99C] [https://web.archive.org/web/20250411192148/https://www.cisac.org/Newsroom/articles/cisac-backs-joint-letter-creators-and-rightholders-organisations] (last visited Apr. 11, 2025).

63. *See* JOINT STATEMENT BY A COALITION OF AUTHORS, PERFORMERS, AND OTHER RIGHTSHOLDERS ACTIVE ACROSS THE EU'S CULTURAL AND CREATIVE SECTORS REGARDING THE THIRD DRAFT OF THE EU AI ACT'S GPAI CODE OF PRACTICE, https://authorsocieties.eu/content/uploads/2025/03/right-holders-joint-statement-on-the-third-draft-code-of-practice-28-march-2025.pdf [https://perma.cc/6K9T-9NU5] [https://web.archive.org/web/20250418055738/https://authorsocieties.eu/content/uploads/2025/03/right-holders-joint-statement-on-the-third-draft-code-of-practice-28-march-2025.pdf] (last visited May 10, 2025).

64. This was also one of the main takeaways from this Author's presentation before the Swedish Parliament's Committee on Cultural Affairs in April 2024. *See also* Louise de Béthune, *Balancing the Scales: Navigating Text and Data Mining, Awaiting Standardization*, KU LEUVEN (Mar. 18, 2025), https://www.law.kuleuven.be/citip/blog/balancing-the-scales-navigating-text-and-data-mining-awaiting-standardisation/ [https://perma.cc/5L8D-5BQS].

65. *See* João Pedro Quintais, *Generative AI, Copyright and the AI Act*, 56 COMPUT. L. & SEC. REV. 106 (2025).

66. *See* Christophe Geiger & Vincenzo Iaia, *The Forgotten Creator: Towards a Statutory Remuneration Right for Machine Learning of Generative AI*, 52 COMPUT. L. & SEC. REV. 1 (2024).

67. *See* Martin Senftleben, *Generative AI and Author Remuneration*, 54 INT'L REV. INTELL. PROP. & COMPETITION L. 1535 (2023).

called extended collective licensing model.[68] This model is further described in the next section.

II. EXTENDED COLLECTIVE LICENSING

A. GENERAL

There are several national models or arrangements for collective licensing that have been labelled as "extended collective licensing."[69] I will here further describe the model which has been developed in Sweden and the other Nordic countries since the 1960s—the "Nordic ECL model."[70] With the adoption of the DSM Directive, this model, and similar models in other European countries, are now considered fully compatible with EU copyright law. Article 12 of this Directive sets out general requirements for such models.

The Nordic ECL model will be described in Section II.B. This will be followed by a description of the requirements set out in Article 12 of the DSM Directive and how this relates to the Nordic ECL model in Section II.C. This will be followed by a discussion on the viability of the ECL model to machine learning in Section II.D.

B. THE NORDIC ECL MODEL

The Nordic countries, who by tradition have cooperated in the field of copyright legislation[71], introduced the first ECL provision in their respective national copyright acts at the beginning of the 1960s.[72] This statutory provision aimed to solve the public service broadcasters' need for legal certainty in their use of works in the field of primary broadcasting of music. Considering the vast number of works involved, it was deemed not viable that the broadcasting organizations, who had collective agreements with national Collective Management Organizations ("CMOs"), should have to bear the administrative costs of finding out which authors were not members of the CMOs. The administrative effort of finding such non-members and negotiating a license with them were considered to give rise to considerable transaction costs. In practice the

68. This was also one of the main takeaways from this Author's presentation before the Swedish Parliament's Committee on Cultural Affairs in April 2024.

69. *See* Tuomas Mattila & Jukka Liedes, *Extended Collective Licensing and Other CLEE-Mechanisms in European Copyright Law*, 2 NORDIC INTELL. PROP. L. REV. 118 (2024).

70. *See also* Jan Rosén, *The Nordic Extended Collective License—Its Characteristics, Qualities, and Flaws*, 6 NORDIC INTELL. PROP. L. REV. 542 (2017) (Swed.).

71. *See* Mogens Koktvedgaard, *The Nordic Cooperation in the Field of Copyright Law—The Last 25 Years*, *in* FESTSCHRIFT FÜR ADOLF DIETZ [FESTSCHRIFT FOR ADOLF DIETZ] 557 (2001) (Ger.). *See also* Johan Axhamn, *Some Supplementary Reflections on the Impact of EU law on Nordic Cooperation in the Field of Copyright*, 1 NORDIC INTELL. PROP. L. REV. 104 (2020) (Swed.).

72. These developments leading up to the introduction of the adoption of the first ECL provision has previously been described by this Author. Johan Axhamn, *The Consistency of the Nordic Extended Collective Licencing Model with International Copyright Conventions and EU Copyright Norms*, 6 NORDIC INTELL. PROP. L. REV. 563 (2017).

broadcasting organizations had begun to broadcast without verifying whether the music was covered by the agreements, thus neglecting the need for prior permission. The national CMOs had accepted this (illegal) practice and provided the broadcasters with a guarantee against claims for compensation (damages) by non-members, including foreign right holders. However, the problem still remained that the broadcasters' use of non-members' rights—sometimes referred to as "outsiders' rights"—still constituted copyright infringement for which they stood the risk of criminal sanctions. This situation led the Nordic legislators to consider possible solutions for legislative support to make the current practice legal, bearing in mind that any solution had to be coherent with international obligations.[73]

The public broadcasters' initial proposal was the introduction of a compulsory license (to be managed collectively). The proposal was, however, bluntly rejected by the right holders' organizations and the committee preparing the legislative proposal. It was deemed too far-reaching considering the right holders' exclusive rights. It was also considered unfair to give the broadcasters a special position compared to other users. In any case, the broadcasters were held to have the administrative resources to, by themselves or in cooperation with the right holders' organization, find and negotiate the necessary permissions from non-members.[74]

The second solution proposed by the broadcasters, which got support from both the right holders' and the Nordic legislators, was the ECL model.[75] The essential component of this proposed model was that it, subject to an agreement between a representative CMO and a user, conferred to the relevant broadcasting organization the right to broadcast published literary and musical works similar to the ones covered by the agreement despite the fact that the authors of those works were not represented by the organization. This is the so-called "extended effect"—provided by law—of the collective agreement. If a broadcaster used a work belonging to a non-member, the author was given a right to remuneration. Non-members were given the right to express reservations against the application of the provisions ("opt out").[76]

The model created through the establishment of the first ECL provision took the form of a legislative provision supporting the system which had in practice already been developed by the CMOs and the broadcasters. Even if the primary purpose of the introduction of the ECL model can be said to have been to protect the users, the model

73. *See* Proposition [Prop.] 1960:17, Kungl. Maj:ts proposition nr 17 år 1960 till riksdagen med förslag till lag om upphovsrätt till litterära och konstnärliga verk, m. m. [government bill], at 147 (Swed.).

74. *Id.*

75. The creation of the ECL system is traditionally attributed to the Swedish professor Svante Bergström who coined the term "extended collective licence." *See* Svante Bergström, *Program för upphovsrätten* [*Program for Copyright Law*], *in* RÄTTSVETENSKAPLIGA STUDIER ÄGNADE MINNET AV PHILLIPS HULT [STUDIES IN LAW DEDICATED TO THE MEMORY OF PHILLIPS HULT] 58 (1960) (Swed.). Indeed, the ECL model has been described as a Nordic legal "invention" in the copyright field. *See* Gunnar Karnell, *Extended Collective License Clauses and Agreements in Nordic Copyright Law*, 10 COLUM. J.L. & ARTS 73, 81 (1985); Tarja Koskinen-Olsson, *Collective Management in the Nordic Countries*, *in* COLLECTIVE MANAGEMENT OF COPYRIGHT AND RELATED RIGHTS 283 (2010).

76. *See* Proposition [Prop.] 1979/1980:132 om ändring i upphovsrättslagen (1960:729), m.m. [government bill], at 13 *et seq.*, 65, 75 *et seq.* (Swed.).

achieved a balance between users' and right holders' interests which is closer to ordinary collective rights management than compulsory licensing. The two main reasons put forward for this assessment is that it only applies on condition that there is a freely negotiated agreement between a representative CMO and a user, and that the outsider has the possibility to opt out.[77] At the same time, for the model to work in practice, it presupposes the existence of a representative CMO with a sound culture of good governance and transparency.[78] Within the EU, rules on good governance and transparency have been introduced by the Directive on collective management of copyright and related rights.[79]

The second area where the ECL model was introduced was photocopying for educational purposes in the 1980s. This field of use shared many of the characteristics of primary broadcasting, such as mass use, related high transaction costs, and a legitimate need for legislative support in an area of great public importance. A traditional limitation—i.e., use is permitted without need to obtain prior consent—was rejected by the legislature as it was deemed to be too far-reaching to the detriment of the right holders, and also in violation of international obligations. The solution of a compulsory license (to be managed collectively) was also rejected as it was deemed better to build on the existing collective agreements—thus safeguarding the principle of voluntary negotiation. It was held that this would normally yield a higher remuneration to the right holders than a compulsory license. In favoring a solution based on an ECL provision over a compulsory license it was stressed that the introduction of an ECL provision presupposed that the market of collective agreements functioned well in practice, i.e., that the educational institutions and the CMO were prepared to conclude agreements so that the intended use could be carried out.[80]

However, the field of photocopying in educational institutions differed in several important respects from primary broadcasting. It was practically impossible to monitor the precise use of an individual work and hence calculate and distribute individual remuneration. The collective agreements often stated only the payment of a lump sum from the users to the CMO based on some rudimentary statistics on extent of use at a few educational institutions. Also, in practice the remuneration scheme detailing the level of remuneration from the organization to the members was often not part of the agreement between the CMO and the user. The remuneration scheme was rather an issue internal to the organization.[81]

77. *See* Axhamn, *supra* note 72, at 565.

78. *See id.* at 568, 574. *See also* Johan Axhamn & Lucie Guibault, *Cross-Border Extended Collective Licensing A Solution to Online Dissemination of Europe's Cultural Heritage* 41 (Amsterdam Law School, Research Paper No. 22, 2012).

79. Directive 2014/26/EU of the European Parliament and of the Council of 26 February 2014 on Collective Management of Copyright and Related Rights and Multi-Territorial Licensing of Rights in Musical Works for Online Use in the Internal Market, 2014 O.J. (L 84) 72.

80. *See* Proposition [Prop.] 1979/1980:132 om ändring i upphovsrättslagen (1960:729), m.m. [government bill], at 13, 65, 75 (Swed.).

81. Proposition [Prop.] 1979/1980:132 om ändring i upphovsrättslagen (1960:729), m.m. [government bill], at 13, 65, 75 (Swed.).

Against this background, it was deemed necessary not only to introduce a statutory provision on the extension effect regarding the contents of the agreement, but also a provision on equal treatment of outsiders vis-à-vis members regarding the internal remuneration scheme of the CMO and other benefits. However, to safeguard their essential interests, outsiders were granted the right to individual remuneration if the extent of the use could be proved. The right to opt out was maintained, however not the obligation of the user to refrain from use if he had special reasons to assume that the outsider would oppose it. To stimulate the coming into being of ECL agreements, the ECL provision was supplemented with rules on mediation between the user and the CMO. Similar to the ECL provision for primary broadcasting, this ECL was deemed by the Nordic legislators to be consistent with international obligations.[82]

The basic features of the ECL model introduced with the ECL provisions on photocopying in educational institutions has since been part of the "standard" ECL model now in use in the Nordic countries: extension effect of a collective agreement between a representative CMO and a user, principle of equal treatment, right to claim individual remuneration, a possibility to opt out, and provisions on mediation.[83]

Since the introduction of the ECL on photocopying, the Nordic legislators have expanded the model to areas of use with common characteristics as those found in primary broadcasting and photocopying for educational purposes. Where applicable the ECL provisions encompass also related (neighboring) rights *mutatis mutandis*. At present, statutory provisions are set out in the Swedish Copyright Act enabling extended collective licensing for the use of works and other copyright-protected subject matter in the following (specific) situations: (i) within government agencies, businesses, and organizations; (ii) in the context of education; (iii) by archives and libraries; (iv) by broadcasting organizations; and (v) for use within press publications.[84]

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82. *Id.*

83. *See* Axhamn, *supra* note 72, at 566.

84. The ECL provision for use of works and other copyright-protected subject matter within government agencies, businesses, and organizations was introduced into the Swedish Copyright Act in 2005, with the implementation of EU Directive 2001/29 (InfoSoc), when the limitation for making copies for private purposes was narrowed so as to exclude making copies for colleagues, etc. at work. *See* Svensk författningssamling [SFS] 2005:359 (Swed.); Proposition [Prop.] 2004/05:110 Upphovsrätten i informationssamhället– genomförande av direktiv 2001/29/EG, m.m. [government bill], at 247 *et seq.* (Swed.). The ECL provision for use of works and other copyright-protected subject matter in the context of education was introduced into the Swedish Copyright Act in 1980. *See* Svensk författningssamling [SFS] 1980:610 (Swed.); Proposition [Prop.] 1979/80:132 Ändring i upphovsrättslagen (1960:729), m.m. [government bill] (Swed.). The ECL provision for use of works and other copyright-protected subject matter by archives and libraries was introduced into the Swedish Copyright Act in 2013. *See* Svensk författningssamling [SFS] 2013:691 (Swed.); Proposition [Prop.] 2012/13:141 Förbättrade möjligheter till licensiering av upphovsrätt [government bill], at 39 *et seq.* (Swed.). The ECL provision for use of works and other copyright-protected subject matter by broadcasting organizations was introduced into the Swedish Copyright Act in 1960 (as the first ECL provision). *See* Svensk Författningssamling [SFS] 1960:729 (Swed.); Proposition [Prop.] 1960:17 Kungl. Maj:ts proposition nr 17 år 1960 till riksdagen med förslag till lag om upphovsrätt till litterära och konstnärliga verk, m.m. [government bill], at 147 *et seq.* (Swed.). The ECL provision for use of works and other copyright-protected subject matter for use within press publications was introduced into the Swedish Copyright Act in 2022 (related to the implementation of the EU Directive

The underlying rationales for implementing an ECL provision in new areas have been the following:[85]

> 1. Apparent demand for mass-use and legitimate public interest to make use legal.
> 2. Individual and collective agreements incapable of meeting the demand due to high transaction costs for clearing outsiders' rights.
> 3. Exception or compulsory licence (managed collectively) deemed too far-reaching, as the rightholders should be given remuneration for the use and this remuneration should be based on free negotiations.
> 4. Potential incompatibility of an exception or compulsory licence with international or EU copyright norms.
> 5. Where criteria mentioned in i)–iv) above are met, the introduction of an ECL provision is justified.

The specific ECL provisions are sectorial, as their respective scope is defined in the statutory ECL provisions. However, technical development tends to create more fields where ECL support is needed. To meet this demand and to relieve legislators from the burden of constant amendments to the national copyright act with additional ECL provisions, the Danish government introduced a general ECL provision in 2008. According to this provision, the contracting parties may define the specific use for which the provisions of law will accord the extension effect. The scope of the license is not explicitly defined by law; instead, it is stipulated that an extended collective license must be a prerequisite for the use. A similar provision was introduced in Sweden in 2013.[86]

C. COMPATIBILITY OF NORDIC ECL MODEL WITH EU AND INTERNATIONAL COPYRIGHT NORMS

1. General

As indicated above, the legislators in the Nordic countries have established ECL regimes over time in several areas of mass-use. This development has, however, also made the ECL provisions and indeed the Nordic ECL model as such, more and more

2019/790). *See* Svensk Författningssamling [SFS] 2022:1712 (Swed.); Proposition [Prop.] 2021/22:278 Upphovsrätten på den digitala inre marknaden [government bill], at 99 *et seq.* (Swed.).

85. *See* Proposition [Prop.] 1960:17 Kungl. Maj:ts proposition nr 17 år 1960 till riksdagen med förslag till lag om upphovsrätt till litterära och konstnärliga verk, m.m. [government bill], at 150; Proposition [Prop.] 1979/80:132 Om ändring i upphovsrättslagen (1960:729), m.m. [government bill], at 12; Proposition [Prop.] 2010/11:33 Återanvändning av upphovsrättsligt skyddat material i radio och tv [government bill], at 18; Proposition [Prop.] 2021/22:278 Upphovsrätten på den digitala inre marknaden [government bill], at 65, 75, 99.

86. Section 42k of the Swedish Copyright Act (1960:729). This general ECL provision was introduced into the Swedish Copyright Act in 2013. *See* Svensk författningssamling [SFS] 2013:691 (Swed.); Proposition [Prop.] 2012/13:141 Förbättrade möjligheter till licensiering av upphovsrätt [government bill] (Swed.).

exposed to challenges based on international and EU copyright norms.[87] For example, it has been held by some commentators that the Nordic ECL model is not compatible with the general norms on national treatment, prohibition on formalities and the three-step test set out in the international conventions.[88] In addition, during the same time as the DSM Directive was being negotiated, the Court of Justice of the European Union ("CJEU") issued a judgment—C-301/15, Soulier and Doke—in relation to a piece of French legislation, somewhat similar to the extended collective licensing model, in which the court held that the legislation constituted a limitation to the rights provided to authors.[89] This also gave rise to the need to clarify the status of ECL arrangements in relation to EU copyright norms. Prior to this case, Sweden and other EU Member States with collective licensing systems similar to the ECL model, relied heavily on Recital 18 to Directive 2001/29, the so-called InfoSoc Directive. According to this recital, the Directive "is without prejudice to the arrangements in the Member States concerning the management of rights such as extended collective licences."[90] This recital was generally understood as classifying the ECL model (and similar models) not as limitations (or exceptions) to the exclusive rights, but as "arrangements concerning the management of rights". By not being classified as providing limitations, the ECL model would thus fall outside the scope of the three-step test and the closed list of permissible limitations and exceptions in Article 5 of the InfoSoc Directive.[91]

As regards national treatment and formalities, I will here refer to previous research in this area.[92] The focus here will be on the requirements for ECL and similar models set out in Article 12 of the DSM Directive. This article was proposed by Sweden and some other EU Member States during the negotiations on the Directive in the Council, to take aim at clarifying and possible solving some of the questions raised because of the Soulier and Doke case.[93]

2. Article 12 DSM Directive

Article 12 of the DSM Directive contains provisions aimed at ensuring that Member States can introduce—or maintain—rules that facilitate collective copyright licensing with extended effect and similar, while at the same time imposing certain fundamental

87. *See* Jane C. Ginsburg, *Extended Collective Licenses in International Treaty Perspective: Issues and Statutory Implementation*, 2 NORDIC INTELL. PROP. L. REV. 215 (2019).

88. *See* Thomas Riis & Jens Schovsbo, *Extended Collective Licenses and the Nordic Experience—It's a Hybrid but is It a Volvo or a Lemon?*, 33 COLUM. J. LAW & ARTS 471 (2010).

89. *See* Case C-301/15, Soulier v. Ministre de la Culture et de la Communication, ECLI:EU:C:2016:878 (Nov. 16, 2016).

90. Directive 2001/29/EC of the European Parliament and of the Council on the Harmonisation of Certain Aspects of Copyright and Related Rights in the Information Society, recital (18), 2001 O.J. (L 167).

91. *See* Koskinen-Olsson, *supra* note 75, at 303; Riis & Schovsbo, *supra* note 88, at 482; Proposition [Prop.] 2004/05:110 Upphovsrätten i informationssamhället – genomförande av direktiv 2001/29/EG, m.m. [government bill], at 243 *et seq.* (Swed.).

92. *See* Riis & Schovsbo, *supra* note 88; Axhamn & Guibault, *supra* note 78; Axhamn, *supra* note 72.

93. *See* Anders Olin, *Developments in Sweden Since the 2022 Nordic Copyright Symposium in Kristiansand*, 1 NORDIC INTELL. PROP. L. REV. 14 (2025).

requirements on such arrangements.[94] It is optional for Member States to have such systems, but if they do, they will have to comply with the requirements set out in the article.

The licensing systems referred to in Article 12 are those found in some Member States, such as agreements with extended collective licensing effect, statutory mandates, or presumptions of representation (Article 12(1)).[95] These systems enable users to enter into agreements with organizations representing authors, granting them the right to use works by authors who are not represented by the organization. The Nordic ECL model is a system that falls within the scope of this Article. The national provisions on extended collective licenses must therefore meet the requirements set forth in the Directive.[96]

Article 12(2) sets out that Member States must ensure that the licensing system in place or introduced applies only to well-defined areas of use where it would typically be so burdensome and impractical to obtain permission from individual rights holders that the licensing transaction becomes unlikely due to the characteristics of the use or types of works involved. Member States must also ensure that such licensing systems protect the legitimate interests of rights holders.

The conditions set out in Article 12(2) are generally a precondition for ECL provisions. For example, in Sweden extended collective licenses are used in areas involving the use of a large number of works and other protected performances, where it is often not possible in advance to determine for which works a license must be obtained. Extended collective licenses enable a user to acquire all the rights needed for their operations through an agreement with a representative organization, while ensuring that the rights holders involved receive compensation. As described above, the extended collective licensing system has been designed with the need for such agreements to be confined to well-defined areas. These areas are ones where it is not practical to obtain permission from individual rights holders to address the needs of the usage.

Further, Article 12(3)(a) requires that the CMOs that enter into ECL agreements fulfil a certain level of representativeness. An organization must, based on its mandates, be sufficiently representative in terms of the rights holders of the type of works concerned and the rights subject to the license within the relevant Member State. This condition is generally fulfilled under Swedish and Nordic law: For an organization to be able to enter into agreements with extended collective licensing effect, it must represent a majority of authors of works used in Sweden within the relevant area.

In addition, Articles 12(3)(b) and (c) require that rights holders whose rights are covered by agreements but who are not represented by the contracting organization must be guaranteed equal treatment. Such external rights holders must also be able to

94. *See* DSM Directive, *supra* note 44, art. 12.

95. *See* Mattila & Liedes, *supra* note 69.

96. *See* Proposition [Prop.] 2021/22:278 Upphovsrätten på den digitala inre marknaden [government bill], at 75 (Swed.).

exclude their works from the relevant licensing system. The ECL provisions in place in Sweden normally includes a possibility to opt out.

Article 12(3)(d) requires that appropriate measures regarding information are taken. Rights holders must be able to access information concerning the possibilities of entering into agreements for such licenses, the licensing conducted in accordance with the provisions, and how rights holders can exclude their works from use. Such "informational" or "publicity" measures must be taken from a reasonable time before the works are used under a license. These measures must be effective, without requiring each rights holder to be personally informed. The recitals of the Directive state that such measures should be adequate throughout the license's validity period and should not impose a disproportionate administrative burden on users, management organizations, or rights holders.[97] The measures to be taken are also relatively general. This is particularly true regarding information about the mere possibility for a particular organization to enter into agreements with extended collective licensing effect. It should suffice for the organization to provide general information about its ability to enter into such agreements, the conditions for entering into such agreements, and what the agreement entails according to the legislation. Similarly, regarding information about the possibility of issuing prohibitions, it should be sufficient to inform about the options available under the legislation. The level of detail of the information should be guided by the need to provide individual rights holders with enough basis to assess whether their works are covered by a certain type of agreement entered into by the organization. In many cases, the group of rights holders intended to be protected by the information is very large. In line with this, the Directive explicitly states that it is not required to inform each rights holder personally. An aim of the information measures should be to ensure that external rightsholders unfamiliar with the type of agreements entered into by the organization with extended collective licensing effect, and the possibilities they have to prohibit the use of their works, are given a real opportunity to access the information. It should generally suffice for the relevant information to be provided on the organization's website. However, the method of providing the information should not be limited to any specific technology.[98]

III. COMPETITION LAW AND THE EU DIRECTIVE ON COLLECTIVE RIGHTS MANAGEMENT

A. GENERAL

Collective management of copyright gives rise to several concerns from a competition law perspective, especially related to the bargaining positions of CMOs in relation to users. This is relevant also—and maybe even more so—in situations where extended collective licensing is applied in relations between CMOs and users. There

97. *See* DSM Directive, *supra* note 44, recital (48).

98. *See* Proposition [Prop.] 2021/22:278 Upphovsrätten på den digitala inre marknaden [government bill], at 79–80 (Swed.).

are several cases from the Court of Justice of the European Union, as well as decisions from the European Commission, that deal with this relationship. These cases and decisions have been largely codified in the 2014 EU Directive on collective rights management (the "CRM Directive"),[99] especially provisions related to the regulation of the relationship between CMOs and users—which are set out in Articles 16 and 17 of this directive. As mentioned above, this directive serves to purpose to introduce increased transparency and good governance of collective management within the EU, and this thus also includes the (licensing) relationship between CMOs and users.

B. RELATIONSHIP BETWEEN CMOS AND USERS

Article 16 of the CRM Directive sets out conditions on licensing. Article 16(1), first paragraph, holds that CMOs and users shall conduct negotiations for the licensing of rights in good faith. For this purpose, CMOs and users shall provide each other with all necessary information. These provisions apply to situations *where* a collective management organization and a user are engaged in negotiations with each other, i.e., the parties are negotiating. The provisions do not imply that the parties must reach an agreement (i.e., the exclusivity, the right to refuse, is retained), and not even an obligation for the parties *to* negotiate with each other. Instead, the provisions establish that *when* collective management organizations and users do engage in negotiations, they must do so in good faith.[100]

The first paragraph of Article 16(2) sets out that licensing terms shall be based on objective and non-discriminatory criteria.[101] The objectivity requirement in the Directive likely means that a CMO may not charge fees for its services to users that are significantly higher than those charged in other EU Member States. The non-discrimination requirement likely means that a collective management organization must apply equal terms for equivalent transactions with users.[102]

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99. Directive 2014/26/EU of the European Parliament and of the Council of 26 February 2014 on Collective Management of Copyright and Related Rights and Multi-Territorial Licensing of Rights in Musical Works for Online Use in the Internal Market, 2014 O.J. (L 84) 72.

100. *See* Statens Offentliga Utredningar [SOU] 2015:47 Kollektiv rättighetsförvaltning på upphovsrättsområdet [government report series], at 304 (Swed.).

101. The second sentence of the first paragraph of article 16(2) sets out an exception to this general rule. According to this exception when licensing rights, CMOs shall not be required to use, as a precedent for other online services, licensing terms agreed with a user where the user is providing a new type of online service which has been available to the public in the Union for less than three years. This exception is explained in recital 32 in the preamble to the Directive. It is there held that in the digital environment, collective management organizations are regularly required to license their repertoire for totally new forms of exploitation and business models. In such cases, and in order to foster an environment conducive to the development of such licenses, without prejudice to the application of competition law rules, collective management organizations should have the flexibility required to provide, as swiftly as possible, individualized licenses for innovative online services, without the risk that the terms of those licenses could be used as a precedent for determining the terms for other licenses. For a discussion, see João Pedro Quintais, *Proposal for a Directive on Collective Rights Management and (Some) Multi-Territorial Licensing*, 35 EUR. INTELL. PROP. REV. 65, 71 (2013).

102. *See* Statens Offentliga Utredningar [SOU] 2015:47 Kollektiv rättighetsförvaltning på upphovsrättsområdet [government report series], at 305 (Swed.).

The second paragraph of Article 16(2) submits that as a general principle, right holders shall receive appropriate remuneration for the use of their rights. Tariffs for exclusive rights shall be reasonable in relation to, inter alia, the economic value of the use of the rights in trade, taking into account the nature and scope of the use of the work and other subject matter, as well as in relation to the economic value of the service provided by the collective management organization. These conditions related to tariffs are inspired by references to "reasonable" and "appropriate" remuneration in other EU Directives o copyright, as well as case law and decisions from the area of EU competition law on prohibition of abuse of a dominant position ("unlawful monopolization").[103]

Furthermore, CMOs shall inform the user concerned of the criteria used for the setting of those tariffs. This entails a certain degree of transparency in determining, for example, tariffs and other licensing conditions. The requirement that the information should concern the criteria used for the calculation means that it is normally sufficient for the CMO to disclose the principles by which it determines the tariffs. The CMO is not required to provide a detailed account of how the tariffs have been calculated in an individual case.[104]

Further, Article 16(3) submits that CMOs shall reply without undue delay to requests from users, indicating, inter alia, the information needed in order for the CMO to offer a license. Upon receipt of all relevant information, the CMO shall, without undue delay, either offer a license or provide the user with a reasoned statement explaining why it does not intend to license a particular service. However, the provision does not impose an obligation to offer a license.[105]

As a final provision related to licensing, Article 16(4) holds that a CMO shall allow users to communicate with it by electronic means, including, where appropriate, for the purpose of reporting on the use of the license.

Article 17 on users' obligations stipulates that users provide a CMO, within an agreed or pre-established time and in an agreed or pre-established format, with such relevant information at their disposal on the use of the rights represented by the CMO as is necessary for the collection of rights revenue and for the distribution and payment of amounts due to right holders. When deciding on the format for the provision of such information, CMOs and users shall take into account, as far as possible, voluntary industry standards.

Article 17 is explained in Recital 33 to the Directive. It is held there that the information required by CMOs should be limited to what is reasonable, necessary and at the users' disposal in order to enable such organizations to perform their functions, taking into account the specific situation of small and medium-sized enterprises. In general, the information that the user must provide is thus limited to what the CMO

103. *See* Case C-52/07, Kanal 5 v. Föreningen Svenska Tonsättares Internationella Musikbyrå (STIM), ECLI:EU:C:2008:703 (Dec. 11, 2008); Case C-395/87, Ministère public v. Jean-Louis Tournier, 1989 E.C.R. 2521.

104. *See* Proposition [Prop.] 2015/2016:181 Kollektiv förvaltning av upphovsrätt [government bill], at 185 (Swed.).

105. *See id.*

needs to collect, allocate, and distribute remuneration to the rights holders. This includes the information necessary for the CMO to determine the amount of remuneration owed and to whom it should be paid. This may include details on which works and performances have been used, as well as the nature and extent of their use.[106]

IV. CONCLUDING DISCUSSION

The advent of generative AI services has given rise to several challenges from a copyright perspective. One of these challenges is whether the development of such services—via machine learning techniques—entails a copyright relevant use, in the form of reproductions, of content protected by copyright. As indicated above, it is likely that such technique entails temporary forms of reproduction. The international conventions on copyright do not require that contracting states protect temporary forms of reproduction by copyright law, and jurisdictions differ in this regard. Within the EU, temporary forms of reproductions are covered by the right of reproduction. This has led to a very broad right of reproduction, and the need to introduce limitations to this right. A general limitation on temporary forms of reproductions was established in 2001, but this only entails temporary forms of reproduction that are necessary for caching and browsing and similar uses.

With the adoption of the DSM Directive in 2019, a general limitation for the purpose of TDM was introduced. It seems as if this limitation could permit temporary forms of reproduction that are necessary for machine learning activities, and this understanding of the limitation is also implied by related provisions in the recently adopted EU AI Act. However, there is a possibility to opt out of this general TDM provision, and it is very likely that right holders will take this opportunity. Standards will likely be developed in this area. This will lead to a situation where use of copyright protected content will need the permission of the right holders. As individual consent for such use might be highly impractical, a possible solution could be collective licensing on the basis of the extended collective licensing model. This model—or licensing mechanism—provides the right holders with the possibility to control use of their works and other subject matter for machine learning purposes, and also provides them with remuneration. This model could thus be a solution that strikes a "fair" balance between the interests at stake—the interest in permitting the use of existing copyright protected content for the development of AI services, while at the same time providing the right holders with control and remuneration.

Article 12 of the DSM Directive sets out general conditions for ECL models, and in this way makes them compatible with general copyright norms. This could also be an inspiration for other jurisdictions that are considering "balanced" solutions for making use of copyright protected content lawful.

Collective licensing, especially licensing based on legislative support such as an ECL mechanism, provides the CMOs with a strong bargaining position in relation to potential users. Within the EU, Article 16 of the CRM directive sets out conditions for

106. *See id.* at 186.

the relationship between CMOs and users, related to licensing, such as requirements on negotiation in good faith and the calculation of tariffs, and Article 17 sets out requirements on users' reporting. Such provisions could be considered also by other jurisdictions that are contemplating whether to introduce ECL provisions for making use of copyright protected content lawful.

As indicated above, the Nordic countries have a longstanding tradition of collective management, which has resulted in a well-developed structure and culture of activities of CMOs. In other words, the functioning and legitimacy of the Nordic ECL model has been dependent on the existence of a well-developed structure and culture of collective management. Undeniably, for any ECL system to function in practice, it is necessary for there to be representative CMOs that can negotiate and enter into relevant collective licensing agreements, as well as collect and distribute remuneration to right holders in an efficient and responsible manner, in a way which brings about trust from both right holders and users. In the Nordic countries, the ECL model was developed on the basis of or in parallel with the establishment of relevant and representative CMOs. Lack of established and reliable CMOs might prove to be a structural challenge for an ECL system to work in practice in other jurisdictions that are considering to adopt such a system.

Identifying an "Effectively Competitive" Market: The Work of the Copyright Royalty Board

*The Hon. David R. Strickler**

ABSTRACT

The United States Copyright Royalty Board ("CRB") establishes royalty rates for compulsory statutory licenses of sound recordings paid by Webcaster licensees to sound recording companies. These rates are set by the government, rather than the market, because the licensed sound recordings are not simply individual copies of discrete sound recordings in competition with each other, but rather are collections of repertoires offered under a blanket license by the major record companies and one independent consortium—who control the vast majority of recordings.

Accordingly, coexisting with the efficiencies of collective ownership is the market power of these collectives. Absent a regulatory rate, the collectives, "complementary oligopolies," can exploit the "Must Have" (essential) nature of their blanket licenses by setting non-competitive royalty rates. When rates are not "effectively competitive," the market is beset by inefficient and exploitive pricing.

It is for this reason that many collective licensors are subject to royalty rate regulation. The fact that unregulated copyright collectives may not achieve an economic optimum establishes the strong theoretical foundation for the regulation of such collectives.

The CRB's three-judge panel is required by statute to "establish rates . . . that would have been negotiated in the marketplace between a willing buyer and a willing seller."[1] To accomplish this economic task, the Judges preside over adversarial trial proceedings between licensors and licensees.

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* Judge Strickler is the Economics Judge and the longest-serving Judge on the U.S. Copyright Royalty Board, where he has served since May 2013, having been reappointed twice by the Librarian of Congress. He is also an adjunct professor at the NYU School of Law, and an adjunct professor in the Music Business program at NYU's Steinhardt School. Nothing in this Article reflects the opinions of any of these institutions, except for direct quotes from a CRB decision, which originated with the prior decisions of the Judges.

1. 17 U.S.C. § 114(f)(1)(B).

Because the statutes supplant the actual market, the CRB Judges must establish a "hypothetical market" that satisfies the statutory standard. A critical element in that regard is the testimony of the parties' economists, which consists of various forms of economic modeling. The experts who proffer such testimony are typically well-credentialed economists who have been, inter alia, the highest-ranking economists at the Antitrust Division of the U.S. Department of Justice and distinguished professors of microeconomics and industrial organization. Their direct oral and written testimonies, akin to expert reports, are subject to adverse expert rebuttals, examination by skilled counsel, and inquiries from the Judges, one of whom (the author of this Article), by statute, "shall have significant knowledge of economics."[2]

This Article focuses on a seminal opinion by the CRB Judges, affirmed by the D.C. Circuit: the Web IV Determination holding that the statutory "willing buyer-willing seller marketplace" standard shall reflect the workings of an "effectively competitive" market.[3] *In all subsequent CRB royalty rate setting determinations, the Judges have applied this "effective competition" standard to the particular facts of the case.*

INTRODUCTION

It is perilous to begin an Article in a legal journal on a topic within the field of law and economics by jumping straightaway into the *specific* economics of the matter. Better to start by noting a vital and basic point: *Economists' opinions presented in legal proceedings (as elsewhere) are typically in the form and context of economic models.*[4] Such evidence is proffered by highly-qualified experts—whose opinions widely diverge. How can that be? After all, many economists maintain that economics is a discipline at least analogous to an objective hard science.[5]

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2. 17 U.S.C. § 802(a)(1).

3. Determination of Royalty Rates and Terms for Ephemeral Recording and Webcasting Digital Performance of Sound Recordings (Web IV), 81 Fed. Reg. 26316 (May 2, 2016), *aff'd sub nom.* SoundExchange, Inc. v. Copyright Royalty Bd., 904 F.3d 41 (D.C. Cir. 2018) [hereinafter, Web IV Final Determination]. Portions of this Article draw directly from the Web IV Determination, which the Author co-authored in his capacity as a Judge of the CRB. These excerpts are incorporated to present the original legal and economic analysis and reasoning reflected in the opinion.

4. One of the most prominent economists of the twentieth century, John Maynard Keynes, who advocated for government involvement to address marketplace deficiencies, wrote that "[e]conomics is a science of thinking in terms of models joined to the art of choosing models which are relevant. . . ." JOHN MAYNARD KEYNES, *The General Theory and After: Part II—Defence and Development, in* XIV THE COLLECTED WRITINGS OF JOHN MAYNARD KEYNES 296 (Donald Moggridge ed., 2013). An equally prominent twentieth century economist, Milton Friedman, although an advocate of the contrary *laissez-faire* perspective, likewise said of economic models: "[T]o use effectively these abstract models . . . we must have a comparable exploration of the criteria for determining what abstract model it is best to use . . . and what features . . . have the greatest effect on the accuracy of the predictions yielded by a particular model. . . ." MILTON FRIEDMAN, ESSAYS IN POSITIVE ECONOMICS 42 (1953).

5. *See, e.g.*, LIONEL ROBBINS, AN ESSAY ON THE NATURE AND SIGNIFICANCE OF ECONOMIC SCIENCE 15 (1932) (describing the theoretical branch of economics as "the science which studies human behavior as a relationship between ends and scarce means which have alternative uses"). *Cf.* DAVID COLANDER & CRAIG FREEDMAN, WHERE ECONOMICS WENT WRONG: CHICAGO'S ABANDONMENT OF CLASSICAL LIBERALISM 3–4 (2019) ("Most classical economists accepted there was a scientific branch of economics. . . . In the 1930s, the economics profession began . . . removing the firewall between economic science and policy.").

One could adopt a cynical mindset and chalk up the divergence to the "hired gun" nature of expert testimony.[6] However, a question logically arises: How and why could such striking disputes exist when economists apply what are the teachings of an essentially objective science? That is, would not the economic expert who misapplies objective truth risk reputational damage—if not ruin—for the heresy of misstating scientific fact?[7]

Here is the answer to the above question as set forth by the Judges in their Web IV Determination:

> The rates proposed by the [Webcasting] Services and SoundExchange [the record company collective] are marked by a wide disparity. Although it is unsurprising that adverse parties would have strikingly different positions, what is surprising is that, despite these differences, the parties' positions are supported to a great extent (but not in all cases) by persuasive and logical economic analyses. Initially, this created a conundrum for the Judges, because none of these persuasive and logical economic analyses could easily be rejected.
>
> On closer inspection, however, what became clear to the Judges was that the reason why many of these disparate economic analyses and models could all appear to be correct was that they each reflected *only a portion of the marketplace*.[8]

The Judges then explained—quoting a prominent economist—how this phenomenon among experts has *particular applicability in economics*:

> Rather than a single, specific model, economics encompasses a collection of models. . . . The diversity of models in economics is the necessary counterpart to the flexibility of the social world. Different social settings require different models. Economists are unlikely ever to uncover universal, general-purpose models. But . . . [economists] have a tendency to misuse their models. They are prone to mistake a model for *the* model, relevant and applicable under all conditions. Economists must overcome this temptation.[9]

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6. *See* Richard Posner, *The Law and Economics of the Economic Expert Witness*, 13 J. ECON. PERSPECTIVES 91, 93 (1999) (identifying (and critiquing) the major recurring criticism that "expert witnesses paid by the respective parties are bound to be partisans ('hired guns') rather than being disinterested, and hence presumptively truthful, or at least honest, witnesses").

7. *See id.* at 93, 96 (explaining why concern over "excessive partisanship[] does not seem [a] very grave [concern] with respect to economic witnesses when they are testifying in areas in which there is a substantial professional consensus" but "is most problematic . . . in the areas of economics in which there is no professional consensus.").

8. Web IV Final Determination, *supra* note 3 at 26334 (drawing on Michael Risinger, *Preliminary Thoughts on a Functional Taxonomy of Expertise for the Post-Kumho World*, 31 SETON HALL L. REV. 508, 508–09 (2000) ("[M]any of the problems that the law has had in handling expertise in the courtroom have sprung from a failure to examine the concept of expertise in appropriate taxonomic detail.")).

9. *Id.* (quoting DANI RODRIK, ECONOMICS RULES: THE RIGHTS AND WRONGS OF THE DISMAL SCIENCE 11 (2015)). The alert reader will note that Professor Rodrik referenced the "flexibility" of the *social* world as a reason for the "diversity" of *economic* models. Query whether this challenges any assumption that economics is more in the nature of a "*hard*" science than a "*social*" science.

This point is instructive for the reader—and always a useful reminder for the Judges—that the disparities and divergences among testifying economists usually cannot merely be waived away as a product of the ethos of the "hired gun," but rather may be the consequence of the experts' honest—but differing—assumptions as to how the relevant market works.[10]

I. WEB IV

On January 3, 2015, the Judges commenced Web IV, the rate-setting proceeding for statutory noninteractive webcasters for the five-year 2016–2020 rate period, which was the fourth such five-year period for which such rates were being established.

The statutory compulsory licenses at issue in *Web IV* related to the public performance of copyrighted sound recordings, including by *commercial* noninteractive webcasting, which is the specific subject of this Article.[11] In particular, webcasters are entitled to perform sound recordings without negotiating individual licenses from copyright owners, provided they pay the statutory royalty rates for the performance of the sound recordings (and for the ephemeral copy of the sound recording) necessary to transmit them.[12] The licensee webcasters pay the royalties to a designated collective, SoundExchange, which in turn distributes the royalty funds to copyright owners.

Of particular importance for this Article, the applicable statute requires that the Judges "shall establish rates and terms that most clearly represent the rates and terms that would have been negotiated in the marketplace between a willing buyer and a willing seller."[13] This statutory standard is commonly referred to in shorthand as the "willing buyer/willing seller marketplace standard."

To provide a sense of the complexity and detail of these rate proceedings, the hearing in Web IV began on April 27, 2015, concluding on June 3, 2015.[14] The Judges heard oral testimony from 47 witnesses, including 16 experts, and admitted 660 exhibits into evidence, comprising over 12,000 pages of documents.[15] After the Judges closed the evidentiary record, the parties submitted required written proposed findings of fact

10. Closely related to the issues of divergent assumptions and models are the selection and application of more general microeconomic principles—in the particular world of intellectual property goods and, for present purposes, in the setting of royalty rates. To that end, this Author's Dissent in the 2019 Phonorecords III Determination sets forth an extended overview of the relevant microeconomic principles. *See* Determination of Royalty Rates and Terms for Making and Distributing Phonorecords, 84 Fed. Reg. 1918 (Feb. 5, 2019) (Strickler, J., dissenting) [hereinafter, "Phonorecords III"].

11. *See* 17 U.S.C. §§ 106(6), 114(d).

12. 17 U.S.C §§ 114(f), 112(e). The "ephemeral license" refers to the statutory compulsory license required to enable the webcaster to make the public transmission of sound recordings to its customers. *See* 17 U.S.C. § 112(e). In Web IV, as in other rate proceedings, the rate for this ephemeral license was set as 5% of whatever royalty revenue is attributable to the § 114 public performance license, on the economic basis that the § 112 ephemeral license, for webcasters, is a necessary "complement" to the § 114 license (i.e., in this context, neither license has any marketplace value in the absence of the other).

13. 17 U.S.C. § 114(f)(2)(B).

14. Web IV Final Determination, *supra* note 3, at 26317.

15. *Id.*

and conclusions of law (and responses thereto).[16] Thereafter, the parties made oral closing arguments to the Judges.[17]

To elucidate the application of economics principles in this proceeding, this Article focuses on the economic facts and arguments proffered by Pandora Media, Inc. ("Pandora") and to a lesser extent by iHeartMedia, Inc. ("iHeart") for the webcasters, and SoundExchange, Inc. ("SoundExchange") for the sound recording licensors, i.e., the record companies and the sound recording artists.

Before tackling the economic opinions and associated evidence and testimony, it is helpful to address the legal issue the Judges needed to address in their Determination: whether the applicable law should be understood to require that royalty rates be set consistent with those that would arise in an "effectively competitive market."

A. EFFECTIVE COMPETITION AS A LEGAL STANDARD

The CRB Judges set forth several reasons in support of their legal conclusion that the Copyright Act requires them to set royalty rates that would be generated by a market that was "effectively competitive." First, the Judges noted that the D.C. Circuit and the Librarian of Congress had acknowledged that the Judges can and should determine whether the proffered rates reflect a sufficiently competitive market.[18]

Second, the Judges ascertained that the relevant legislative history supports the conclusion that section 114 directs them to set rates reflecting the workings of an effectively competitive market. That is, the legislative history equates rates set under the willing buyer/willing seller standard with reasonable rates, which have been construed by the rate court,[19] in an analogous context, as "rates that would be set in a competitive market."[20]

Third, the Judges were informed by the analogous use of the willing buyer/willing seller standard in eminent domain law.[21] In such cases, the courts must consider whether to award a forced seller the "holdout" value of the seller's parcel, an additional value that exists solely because the seller's property is a necessary *complement* to the other properties that are needed by the governmental unit. The Judges found that it is precisely this *complementary oligopoly premium* that the Judges must exclude in the

16. *Id.*

17. *Id.*

18. *Id.* at 26373.

19. The "rate court" is shorthand for the jurisdiction of the U.S. District Court for the Southern District of New York to adjudicate rate disputes between American Society of Composers, Authors, and Publishers ("ASCAP") or Broadcast Music, Inc. ("BMI"), respectively, and potential licensees of public performance rights for the musical works embodied in sound recordings—but not licenses for the sound recordings themselves. (This procedure was established in antitrust consent decrees entered into between the Department of Justice and, respectively, ASCAP and BMI.)

20. Web IV Final Determination, *supra* note 3, at 26331–32.

21. *See, e.g.*, Kirby Forest Ind., Inc. v. U.S., 467 U.S. 1, 10 (1984) (applying the willing buyer/willing seller test in an eminent domain valuation dispute).

statutory rate based upon their analyses of the parties' benchmarks proffered in this proceeding.[22]

Fourth, the Judges were also persuaded that the statutory structure regarding the sound recording performance right—as it relates to terrestrial radio, noninteractive services, and interactive services—confirms the necessity of adopting an "effectively competitive" standard in the rate-setting process.[23] Copyright owners were provided a limited performance right with regard to the use of their sound recordings by noninteractive services—something less than the purely private market-based rate for interactive use, but clearly more than the "zero rate" required from terrestrial radio.[24] The Judges concluded that a rate simply reflective of either polar extreme would be inconsistent with the tripartite statutory structure.[25] Further, even though the § 114 language refers to a "marketplace" standard," the Judges concluded that did not require them to import the (anti)competitive dynamics of the interactive market, which, although a potential *benchmark* market, was not the *same* market as the hypothetical noninteractive market they were required to construct in the rate-setting process.[26]

SoundExchange raised several objections to the interpretation of the section 114 "willing buyer/willing seller marketplace standard" as supporting an application of an "effective competition" standard. SoundExchange asserted a conceptual criticism that an "effective competition" standard is deficient because there is no pre-existing "bright line" test sufficient to distinguish a rate which is "effectively competitive" from one that is not.[27] In rejecting this criticism, the Judges noted that "[t]he very essence of a competitive standard is that it suggests a continuum and differences in degree rather

22. *See* Web IV Final Determination, *supra* note 3, at 26342 (explaining that "complementary oligopolists"—identified by economists as providing "Cournot Complements"—are suppliers of "must have" (essential) products, selling "complements, not substitutes, because buyers need each of them and cannot substitute one for another . . . [F]irms offering complementary products tend to set higher prices than would even a monopoly seller of the same products, illustrating that suppliers of complements do not compete with one another."); *see also* Thomas Miceli & C.F. Sirmans, *The Holdout Problem, Urban Sprawl and Eminent Domain*, 16 J. HOUS. ECON. 309, 314 (2007) ("*complementarities* among properties in the assembly case that are not present in the individual transaction" are the consequence of "market failure," economic "rent seeking" and generate inefficient "transaction costs").

23. Web IV Final Determination, *supra* note 3, at 26334.

24. There is no statutory license in interactive markets (i.e., for "on demand streaming services") with regard to their licensing of sound recordings. Therefore, for example, Spotify must negotiate in the market for a license to stream, for its on-demand service, Sony's sound recordings, at a royalty rate to which both parties agree, or else Spotify will not be able to provide its listeners with access to Sony-owned sound recordings. With regard to terrestrial (i.e., AM/FM radio), the Copyright Act does not provide sound recording owners with a public performance right, and therefore radio stations in the United States (unlike radio stations in other countries) can broadcast sound recordings—as no royalty payment is required. (A detailed discussion of the histories and purported rationales for these inconsistent approaches is beyond the scope of this Article.)

25. Web IV Final Determination, *supra* note 3, at 26334 (citing WILLIAM W. FISHER III, PROMISES TO KEEP: TECHNOLOGY, LAW, AND THE FUTURE OF ENTERTAINMENT 104–05 (2004) (explaining that different statutory treatment of terrestrial radio, interactive services, and noninteractive services was based upon the fundamental ability and limits regarding the performance, promotion of, and substitution for sound recordings)).

26. The benchmark proffered by SoundExchange was the interactive market, as discussed *infra*.

27. Web IV Final Determination, *supra* note 3, at 26332.

than in kind,"[28] indicating the existence of factual distinctions across different markets, and across time within markets.[29] And, because the statutory charge requires the Judges to weigh "competitive information," they are thus "empowered to make judgments and decide whether the rates proposed adequately provide for an effective level of competition."[30] Moreover, in the present case, the Judges were presented with "highly specific facts" by which to address and apply the "effective competition" standard.[31]

B. THE TRIAL

At its core, the heavyweight economic dispute in this contest was an important disagreement regarding how to apply two different economic models, which reflected different but not generally inconsistent fundamental economic principles. In one corner was the economic argument made on behalf of SoundExchange. Through its principal expert, Professor Daniel Rubinfeld,[32] SoundExchange proffered a "ratio equivalency" model, which, as SoundExchange explained, embodies a basic principle of "profit maximiz[ing]" behavior that occurs in any marketplace, and which supported its argument that the interactive benchmark rate was "effectively competitive."[33] In the other corner was Pandora's principal expert, Professor Carl Shapiro,[34] who proffered a "price competition" model—which Pandora maintained was an essential feature of an "effectively competitive" market.[35]

1. SOUND EXCHANGE'S "RATIO EQUIVALENCY" MODEL

SoundExchange proposed the following per-play statutory royalty rates for the 2016–2020 Web IV rate period:[36]

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28. *Id.* at 26334.

29. *Id.*

30. *Id.*

31. *Id.* The analysis of and distinction among different factual cases is an essential feature of case-based reasoning. Thus, to make distinctions among markets according to the extent of their competitiveness is a quintessential legal function. Moreover, judges' reliance on the holdings in legal precedents are analogous to economists' reliance on assumptions in models, in that both identify and seek to apply (or reject) inexact but similar fact patterns. *Compare* KARL LLEWELLYN, THE BRAMBLE BUSH 47 (11th ed. 2008) (A "striking problem[]" of the case system is whether cases similar on their facts may nonetheless lead to "a difference in result" and "what difference in their facts . . . has produced that difference in result.") (emphasis omitted) *with* RODRIK, *supra* note 9, at 50 ("Identifying which models to use means parsing and selecting . . . models that seem relevant and helpful . . . while discarding the rest.").

32. Professor Rubinfeld has served as the Deputy Assistant Attorney General for Antitrust in the U.S. Department of Justice.

33. *See* Web IV Final Determination, *supra* note 3, at 26337–38, 26340, 26344–45.

34. Professor Shapiro has served as the Deputy Assistant Attorney General for Economics in the Antitrust Division of the U.S. Department of Justice.

35. *See* Web IV Final Determination, *supra* note 3, at 26341, 26356.

36. *Id.* at 26391. SoundExchange also proposed a percent-of-revenue rate, combining both rate formats in a "greater-of" formulation. The Judges rejected the "greater-of" approach, *id.* at 26325, a ruling that is beyond the scope of this Article.

SoundExchange Proposed Per Performance Rates

Year	Per-Performance Rate
2016	$0.0025
2017	$0.0026
2018	$0.0027
2019	$0.0028
2020	$0.0029

These proposed royalty rates did not distinguish between plays on ad-supported or subscription services, and the proposed 2016 rate alone exceeded the then-existing statutory rate for 2014 set in the prior webcasting proceeding (Web III) of $0.0023 by 8%.[37]

Professor Rubinfeld's model "assumed that the ratio of the average retail subscription price to the per subscriber royalty paid by the licensee to the record label is approximately the same in both interactive and noninteractive markets."[38] He first presented this "ratio equivalency" by the following equation:

$$A/B = C/D$$

Where:
[A] = Avg. Retail Interactive Subscription Price
[B] = Interactive Subscriber Royalty Rate
[C] = Avg. Retail Noninteractive Subscription Price
[D] = Noninteractive Subscriber Royalty Rate

To make the ratios more intuitive by comparing retail price ratios to royalty rate ratios, Professor Rubinfeld then transformed the ratios so that the ratio of numerator:numerator was set equal to the ratio of denominator:denominator,[39] expressed therefore as:

$$A/C= B/D$$[40]

Professor Rubinfeld testified that this "ratio equivalency" assumption is not only important, but indeed *foundational* to his entire analysis.[41] More particularly, Professor

37. Services that only transmitted noninteractive music (pureplay services) paid only $0.00130/play in 2014 and $0.00140 in 2015 pursuant to a settlement that by statute was neither binding nor evidentiary. *See* Notification of Agreements Under the Webcaster Settlement Act of 2009, 74 Fed Reg. 34796, 34799 (July 17, 2009); 17 § U.S.C. 114(f)(5)(C).

38. Web IV Final Determination, *supra* note 3, at 26337 (quoting Testimony of Daniel L. Rubinfeld ¶ 169).

39. The ratios can be transformed this way mathematically. Consider, if A = 20, B = 10, C = 10 and D = 5, A/B = 2 and C/D = 2. Likewise, A/C = 2 and B/D = 2.

40. Web IV Final Determination, *supra* note 3, at 26337–38.

41. *Id.* at 26338.

Rubinfeld testified that a fundamental economic principle underlay his assumed equivalency in these ratios: His "ratio equivalency" model was intended to create a rate whereby every marginal increase in subscription revenue would result in the same increase in royalty revenue, whether that marginal increase in subscription occurred in the interactive market or the noninteractive market.[42] This result, as Professor Rubinfeld explained, reflected an application of rational profit maximizing behavior by a willing seller or licensor, as he explained in his testimony during a colloquy with the Judges:

> [JUDGE STRICKLER]
>
> [T]hat's an application . . . of a fundamental economic process of profit maximization . . . . [The record companies] would want to make sure that the marginal return that they could get in each sector would be equal, because if the marginal return was greater in the interactive space than the noninteractive . . . you would want to continue to pour resources, recordings in this case, into the [interactive] space until that marginal return was equivalent to the return in the noninteractive space. Would that be correct?
>
> [DR. RUBINFELD]
>
> It would. You said that just the way I would like to have said it when I was teaching that subject. Yes, I agree with that.[43]

A useful economic model is enhanced if, in addition to a solid theoretical economic rationale, which Professor Rubinfeld had provided, there is industry evidence of its application in reality. Here, the desire of the record companies to achieve such pricing equivalency was indeed confirmed by a senior Warner executive who testified as follows:

> Our goal, *aspirationally and in actual results*, has been a [REDACTED] percent rev[enue] share in this area generally … So we've been kind of struggling, if you will, to pull these business models up to what we think is *the level of consideration that we find appropriate for essentially all of these music models, which is the* [REDACTED] *range.* So it was a combination of trying to be realistic and make major progress towards *our ultimate goal.*[44]

Accordingly, the Judges found that Professor Rubinfeld's "ratio equivalency" model thus implicitly assumes a 1:1 "opportunity cost" for record companies, whereby, on the margin, a dollar of revenue spent on a subscription to a noninteractive service is a lost

42. *Id.* at 26344.

43. *Id.* (quoting Transcript of Record, Day 9 (May 7, 2015) at 2325); *see also id.* (Testimony of Daniel L. Rubinfeld ¶ 172) ("All else equal, the interactivity adjustment sets statutory rates that represent the same fraction of subscription prices as paid by the on-demand services. . . .").

44. Web IV Final Determination, *supra* note 3, at 26345 (quoting Transcript of Record, Day 27 (June 3, 2015) at 7406) (emphasis added).

opportunity for royalties from a dollar to be spent on a subscription to an interactive service.[45] That is, it is important to the record company to attempt to equalize its return in terms of royalty percentage to avoid incurring an economic loss if a listener switches from an interactive service to a noninteractive service.

For an economic model to be useful to the Judges, it also needs to be supported by data. Professor Rubinfeld utilized the available data to calculate values for A, B, and C, which allowed him to identify a ratio of A/C = 2.0, and use that to calculate the unknown value, i.e., SoundExchange's proposed statutory royalty rate of $0.0025 for 2016.[46]

Importantly, this ratio provides the discount factor that reflects the "interactivity adjustment" to the royalty rate for interactive services, which he then applied to determine his proposed royalty rate for noninteractive services. That is, this ratio equivalency model implicitly makes the "interactivity adjustment" that all parties recognized as necessary to reduce the noninteractive royalty rate below the interactive rate, on the basis of a difference in functionality (i.e., no songs "on demand" in the noninteractive sector).[47]

Now recall the earlier discussion of how economic models are built on assumptions. Is Professor Rubinfeld's 1:1 substitution approach an "assumption" (and the industry's "aspiration") or in the nature of broader economic logic? The answer from the Services was an emphatic – Professor Rubinfeld was making an "assumption." As an iHeart economic witness, Professor Douglas Lichtman, testified:

> [Professor Rubinfeld] assum[es], I think, a perfect substitution . . . assumptions about substitution, competition how all of these markets interrelate . . . . [I]t's intuitive. I understand why he was drawn to it. It's so nice to say, yes, roughly these will all be the same, revenue to royalty, revenue to royalty.[48]

When experts in applied economics disagree on the validity of an assumption, the Judges can find themselves in a quandary. Fortunately, as to Professor Rubinfeld's model, this dilemma was moot because the parties had proffered survey and industry evidence regarding the question of whether interactive subscriptions were sufficiently substitutable for noninteractive listening. As explained below, the answer was a split-decision.

First, the Judges noted that the record evidence was overwhelming that there is a sharp dichotomy between listeners who have a positive willingness to pay ("WTP") and therefore may pay a subscription fee each month for a streaming service and those listeners who have a WTP of zero. The most persuasive evidence on this point was found in the results of the conjoint survey conducted by *SoundExchange's own witness*,

45. *Id.* at 26344–45.

46. See *id.* at 26337–39 for detail regarding Professor Rubinfeld's calculations.

47. The interactivity adjustment is distinct from an "effective competition" adjustment; the latter is the adjustment of interest in this article.

48. Web IV Final Determination, *supra* note 3, at 26345 (quoting Transcript of Record, Day 15 (May 15, 2015) at 4043–44.).

Professor Daniel McFadden, who won a Nobel Prize for his significant contributions in the field of "discrete choice," which involves economic modeling through "conjoint" analyses and surveys. In this proceeding, he constructed and presented a conjoint survey regarding the value of attributes that a music subscription service might embody (such as sound quality, ad-free listening and a comprehensive repertoire) and he estimated the price attached to each attribute.[49] Although *his purpose* was to build a value for a subscription service from the sum of the prices consumers were willing to pay for such attributes, *the consequential takeaway* from his testimony was the following:

> I find that consumers of streaming services divide between those who are willing to pay for these services (and the extra features they offer) and those who are averse to paying for music streaming services . . . .[50]

Simply put, Professor McFadden's data revealed two classes of listeners: those who would pay a positive sum for various features available in a noninteractive service and those who refused to pay *any money for any features*. As one Service economist Dr. Steven Peterson explained, SoundExchange and Professor Rubinfeld emphasized the *average* WTP among the survey participants in service of their interactivity adjustment, but that average obscured the clear bimodality of Professor McFadden's results.[51]

Moreover, the record is replete with industry witness testimony corroborating this point. A Sony executive testifying on behalf of SoundExchange stated: "It's challenging to convince . . . consumer[s] to open their wallet and pay for something that is similar to something that is available to them for free . . . ."[52] A Universal executive likewise acknowledged that he lacked data to support a conclusion that there is "some meaningful group of users who would be willing to pay to subscribe to Pandora beyond those who already have" and that "the music-buying public has never been a huge market."[53] Further supporting this dichotomy, an internal Warner strategy document noted that "[a]d-supported services have proven to primarily be additive and to be targeting a different demographic than paid services," and testimony from a Warner Music executive noting that Pandora weaned listeners from terrestrial radio whose listening, therefore, had not previously been responsible for revenues that could be monetized into upstream royalties.[54] Finally, survey evidence credited by the Judges

49. *Id.* at 26338.

50. *Id.* at 26345 (quoting Testimony of Daniel L. McFadden ¶ 10).

51. *Id.* ("[Professor McFadden's] distribution . . . has two peaks . . . . [T]he average willingness to pay for a service with no ads masks the . . . bimodal distribution . . . at the peaks [of] divergent preferences . . . regarding a service with or without advertisements.") (quoting Dr. Peterson).

52. *Id.* at 26345 (quoting Transcript of Record, Day 3 (Apr. 28, 2015) at 376).

53. *Id.* (quoting Transcript of Record, Day 4 (Apr. 30, 2015) at 990, 1114).

54. *Id.* at 26346 (quoting Ex. 3118 at 11 and citing Transcript of Record, Day 9 (May 7, 2015) at 2405–06).

demonstrated that "the majority of people are essentially . . . seeking free services" and 79% of survey respondents were not likely to pay for a subscription service."[55]

Tying these facts to the nature of consumers' divergent tastes, another SoundExchange expert economic witness, David Blackburn, testified as to the distinction between "music aficionados" with their higher WTP for music and casual listeners with zero WTP:

> [T]he consumer who values sound recordings highly is apt to have an interest in particular sound recordings, and will be more willing to pay for a subscription that allows him or her more "functionality," including the ability to select songs on demand. By contrast, the more casual listener, with a number of free alternatives such as terrestrial radio, lacks the same desire to select a particular song at a particular time.[56]

For these reasons, the Judges found as follows:

> Despite the overwhelming evidence of this dichotomy in WTP, [Professor] Rubinfeld's model is based *solely on the subscription platform*. Thus, it is not reasonable to conclude that the ratio of subscription rates to royalties in the interactive market is relevant to the opportunity cost to a record company of listeners who opt instead for ad-supported noninteractive listening. Rather, ad-supported (free-to-the-listener) internet webcasting appeals to a different segment of the market, compared to subscription internet webcasting, and therefore the two products differentiated by this attribute ("ads and free" vs. "no ads and subscription fee") *cannot be compared to perform a 1:1 measure of opportunity costs as is the case in Dr. Rubinfeld's "ratio equivalency" model.*[57]

For these principle economic reasons,[58] the Judges declined to utilize Professor Rubinfeld's "ratio equivalency" model to set the noninteractive rate in the *ad-supported* market. However, the Judges did find the economic logic and marketplace facts attendant to his "ratio-equivalency" model to be useful and appropriate for setting the royalty rate in the noninteractive *subscription* market. Specifically, the Judges found

55. *Id.* (quoting Transcript of Record, Day 14 (May 14, 2015) at 3742).

56. *Id.* (citing Transcript of Record, Day 6 (May 4, 2015) at 1677–79) (testimony of Blackburn).

57. *Id.* at 26346 (emphasis added). An important economic point regarding the ratio equivalency model: When applied on behalf of an input supplier who incurs a *positive marginal cost* to produce the input, the relevant ratio across input buyers would be input price/input cost, so inputs would be sold to buyers with a higher willingness-to-pay. However, in the digital music sectors, the additional electronically streamed copies have essentially *a zero marginal cost*. (Such "second copies" are called a type of "public goods" by economists, in contrast to goods with positive marginal costs, which are typically "private goods.") To be sure, costs such as identifying potential artists and songs, developing artists, producing the songs, and marketing both to the public are substantial, and of course profits must be anticipated and realized—all of which are considered "first copy" costs, not marginal "second copy" costs in this context. In economics, price in a perfectly competitive market is equal to marginal cost, so, with a marginal cost of zero, the market would obviously fail to exist, and prices thus must be established in another manner. But this paragraph has gone on long enough—the purpose here is not to lay out all the microeconomics attendant to rate-setting. However, if you are curious, see Phonorecords III, *supra* note 10, at 1976–80 (Strickler, J., dissenting).

58. *See* Web IV Final Determination, *supra* note 3, in full for all other facts and analyses supporting the Judges' findings regarding the use and limitations on SoundExchange's ratio-equivalency model.

support for this application of the "ratio equivalency" model in the subscription market to be supported by the following points:

(1) Revenues in both markets are derived from subscription revenues and are thus reflective of buyers with a positive WTP for streamed music;
(2) functional convergence and downstream competition for potential listener indicate a sufficiently high cross-elasticity of demand as between interactive and noninteractive services, provided the noninteractive subscription rate is reduced to reflect the absence of the added value of interactivity; and
(3) a steering adjustment is made to eliminate the complementary oligopoly effect and thereby provide for an effectively competitive market price.[59]

2. Pandora's Noninteractive Benchmark

Pandora proposed the following rates:[60]

Table 2: Pandora's Rate Proposal

Year	Ad-Supported	Subscription
2016	$0.00110–$0.00120	$0.00215–$0.00224
2017	$0.00112–$0.00123	$0.00218–$0.00228
2018	$0.00114–$0.00125	$0.00222–$0.00232
2019	$0.00116–$0.00127	$0.00226–$0.00236
2020	$0.00118–$0.00129	$0.00230–$0.00240

Pandora relied upon its 2014 agreement with Merlin (the "Pandora/Merlin Agreement") to support its rate proposal. Merlin is a global rights agency that represents and collectively negotiates on behalf of thousands of independent record companies in the United States.[61] Merlin members who entered into this agreement could have declined to enter into the Pandora/Merlin Agreement and thus remained bound in 2014 and 2015 by the applicable statutory royalty rates.[62]

The key provisions of the Pandora/Merlin Agreement were the following:

59. *Id.* at 26353. The discussion of a "steering adjustment" is set forth *infra* in connection with the Pandora and iHeart rate proposals.
60. Web IV Final Determination, *supra* note 3, at 26355.
61. *Id.* at 26355–56.
62. *See supra* note 37.

> The 2014 per-play contract rates are *lower* than the then-existing statutory rates for ad-supported and subscription services.[63]

The agreement contains what is known as a "steering" provision. Steering, as used in this proceeding, refers to a licensee's technical ability and contractual right to "control the mix of music that's played on the service" based on "differences in royalty rates charged by different record companies."[64]

The Pandora/Merlin Agreement applied Pandora's latest technology, allowing it to steer its listeners *toward* sound recordings from labels with a relatively *lower* royalty rate and *away from* labels with a relatively *higher* royalty rate.[65] Just as the "ratio equality" model was "*foundational*" to SoundExchange's rate proposal, steering is the "*central piece*" of Pandora's rate proposal.[66]

In light of the restriction on public disclosure of the actual steering terms in the Pandora/Merlin agreement, it is instructive to provide the following hypothetical that plugs in arbitrary values of the varying royalties and varying plays:

> Under the hypothetical agreement:
>
> Pandora promises to increase the quantity of plays by at least 15% . . . above Merlin's natural [*i.e.*, historic] performance rate
>
> and, in exchange,
>
> Pandora will receive a discount on the royalty rate of 10%.
>
> Assume that before this agreement Pandora paid Merlin at the existing statutory rate of $0.0020 in royalties.
>
> The *revenue effect without steering* over, *e.g.,* 1,000 natural (historical) plays is:
>
> $0.0020 x 1000 = $2.00 Total Revenue *without steering*.
>
> Under the new steering agreement, *the number of plays increases* by 15%, from 1,000 to 1,150.
>
> Under the new steering agreement, *the royalty rate decreases* by 10% from $0.0020 to $0.0018. After agreement royalty is $0.0018 and plays increase from 1,000 to 1,150.
>
> The *revenue effect with steering* over these 1,150 plays (historical + steered) is:
>
> $0.0018 x 1150 = $2.07 Total Revenue *with steering*.

63. The specific rates were deemed proprietary and confidential and therefore "restricted," and cannot be disclosed in any public document, including this Article. A hypothetical example is presented *infra*.

64. Web IV Final Determination, *supra* note 3, at 26356.

65. *Id.*

66. *Id.* (quoting Testimony of Carl Shapiro at 27).

Cui bono? *Clearly*, Merlin comes out ahead with higher total revenue.[67] Does Pandora also gain? Of course—otherwise it would not have entered into the agreement. But how? Recall that Pandora is now paying $0.0018 instead of $0.0020 for 150 plays above Merlin's historical play share. But these extra 150 plays needed to come from somewhere, and that "somewhere" was from the plays that otherwise would have been made of sound recordings from other companies—including Sony, Universal, and Warner. Thus, Pandora reduced its royalty cost by $0.0002 (i.e., $0.0020 - $0.0018) across 150 plays, which equals a cost savings of $0.03 (i.e., $0.0002 x 150). When one considers the millions of sound recordings that can be substituted via steering, these small values add up to real money!

Of course, as non-economists well know, economists are fond of noting that "there is no such thing as a free lunch." So, *cui malo*? The negatively affected parties are the record companies whose historical play rates were reduced to allow Merlin to receive 15% more plays.

The impact of steering 15% toward one label and away from the others was negligible from the perspective of the listener, according to Professor Shapiro. Relying on Pandora's Steering Experiments (discussed *infra*) he testified that a 15% steering "boost" to a Major with a prior "natural" performance rate of 20% would have "almost no perceptible impact on the listening experience, as it would entail a change in 'one [song] out of 30' or 'one song every couple [of] hours.'"[68]

E. PANDORA'S STEERING EXPERIMENTS

As noted *supra*, to support its further assertion that the effects of potential steering can be pervasive throughout the noninteractive market, Pandora also relied on evidence of its 2014 in-house "steering experiments." These steering experiments tested Pandora's ability to overspin or underspin recordings owned by each of the Majors.[69]

Over thirteen weeks, Pandora conducted a series of steering experiments in order to determine whether changes in the number of sound recording plays owned by a particular record company would have a measurable impact on the average hours per listener.[70] The Steering Experiments targeted UMG, Sony, or WMG with a steering of play shares (in the treatment group) as compared to plays that would occur according to the standard Pandora music recommendation results (in the control group).

67. The fact that Merlin labels would earn more revenue under the lower steering-based rate undermined SoundExchange's argument that the statutory rate acted like a "shadow," compelling labels to pay more than they would have in an unregulated market. Web IV Final Determination, *supra* note 3, at 26329–31 .

68. Web IV Final Determination, *supra* note 3, at 26368–69 n.143 (quoting Transcript of Record, Day 17 (May 19, 2015) at 4630–35).

69. *Id.* at 26357–58.

70. *Id.* at 26357.

The play share steering percentages were: -30%, -15%, +15%, and +30% for each of the three companies.[71] The subjects of the Steering Experiments were all Pandora listeners, each randomly assigned to one of the twelve treatment groups or to the single control group.[72]

The experiments demonstrated that Pandora's steering -15% or +15% for all three Majors *did not* cause a statistically significant change in listening behavior. However, Pandora's steering -30% or +30% *did cause* a statistically significant change in listening behavior.[73]

The Judges found that Pandora's steering-based noninteractive benchmark was informative regarding the statutory rates to be set.[74] In reaching these findings, the Judges considered, and rejected, several economic arguments raised by SoundExchange, as discussed below.

First, the Judges rejected SoundExchange's argument that steering creates merely a "first mover" advantage for licensors who enter into steering arrangements before their competitors. The Judges described this argument as seductively simple: It is based on the tautology that no noninteractive service can steer more than 100% of its sound recordings.[75]

To take a simple example,[76] assume there are three Majors, U, S, and W, and one Indie, M. Assume the ex ante steering allocation of plays was 40% for U, 30% for S, 20% for W, and 10% for M, and all plays were priced at $0.0020. The noninteractive service then strikes a deal with M to increase its plays by 50% over the ex ante percentage, in exchange for, say, a 10% reduction in per-play rates to only M. Then, M's noninteractive market share increases by 50% from 10% to 15% (while its per-play rate declines by only 10%) resulting in more revenue for M *ex post* steering). As a "first mover," M indeed benefits.

However, as SoundExchange notes, the noninteractive licensee cannot promise all three other licensors, U, S, and W, the same 50% increase in plays via steering in the same contract period. If it did, U would realize a market share increase from 40% to 60%; S would realize a market share increase from 30% to 45%; and W would realize a market share increase from 20% to 30%. All four licensors, including M, would thus be promised 60% + 45% + 30% + 15% = 150%.[77]

> As the CRB Judges explained:
>
> SoundExchange's point is that, by definition, it is mathematically impossible for a noninteractive licensor to allocate more than 100% of its plays. Thus, SoundExchange

71. *Id.* at 26358.
72. *Id.*
73. *Id.*
74. *Id.* at 26366–67.
75. *Id.* at 26366.
76. *Id.*
77. *Id.*

> concluded, steering can only work in a non-statutory setting and, even then, never for all licensors.[78]

This tautological argument, the Judges noted, of course is mathematically correct, but only in the *static* sense. However, the Judges asked, is it correct *economically*, in the *dynamic* sense? Professor Shapiro, for Pandora, responded to this argument from the witness chair in the following colloquy:

> [JUDGE STRICKLER]
>
> Let's . . . take . . . the market we're dealing with here [and] address the first-mover criticism . . . that well, sure, you can steer to . . . record company A . . . but you can't steer to all of them because you can't play more than 100 percent of the music. *Is it . . . the threat of steering that pushes everybody . . . towards their original percentages to avoid being that odd man out who was the holdout for the higher price?*
>
> [PROFESSOR SHAPIRO]
>
> *That's exactly—yes, absolutely. The competitive outcome is when each of the record companies is at a rate where they're . . . not disadvantaged relative to the other guys . . . . This notion that you can't steer, the 100% thing, it's kind of offensive to an antitrust economist . . . because it's basically saying . . . price competition is some horrible thing.*[79]

Thus, as Professor Shapiro set forth in his written testimony, with steering, the "net result . . . in a workably competitive market may well be relatively little actual steering," whereas, in the absence of steering, "[y]ou would be basically going to the rate that a cartel or monopolist would set."[80]

Confirming the effectiveness of a threat of price competition generated by Pandora's expressed willingness to steer, SoundExchange's own industry witness—an executive with a Merlin-represented label—testified that it was in his record label's self-interest to act "defensive[ly]" to enter the Pandora/Merlin Agreement, in light of the fact that Pandora might enter into "similarly structured deals" with other record companies.[81] And bringing the analysis back to the "hypothetical" market (of which this actual market evidence was confirmatory), a SoundExchange expert witness acknowledged that it would be a fundamental mistake to assume that record companies would ignore the "opportunity cost" caused by a noninteractive service steering away from their repertoires.[82]

Accordingly, the Judges found that steering in the noninteractive hypothetical market (experimental) and actual market (the Pandora/Merlin and iHeart/Warner

78. *Id.*

79. *Id.* (quoting Transcript of Record, Day 17 (May 19, 2015) at 4561–63) (emphasis added).

80. *Id.* (quoting Testimony of Carl Shapiro at 9 and Transcript of Record, Day 17 (May 19, 2015) at 4575).

81. *Id.* at 26367 (quoting Transcript of Record, Day 2 (Apr. 28, 2015) at 611 and Day 25 (June 1, 2015) at 6963).

82. *Id.* (quoting Transcript of Record, Day 6 (May 4, 2015) at 1516–17).

agreements[83]) would mitigate the complementary oligopoly effect, making the market effectively competitive. That is, "[s]teering is synonymous with price competition in this market, and the nature of price competition is to cause prices to be lower than in the absence of competition, through the ever-present 'threat' that competing sellers will undercut each other in order to sell more goods or services."[84]

The Judges also rejected SoundExchange's argument that this steering-based process would result in a "*race to the bottom.*"[85] Rather, it typifies a "race" to a workably or effectively competitive price. On the *licensees'* side of the market (the buyers' side), the limit on the demand for lower rates through steering is reached when the noninteractive service is no longer in a position to make further substitutions of one record company's sound recordings for another's because the potential for lost revenues exceeds the cost savings. Indeed, this is the lesson from Pandora's Steering Experiments.[86] As for the *licensors*, the limit on their willingness to license (supply) recordings at royalty rates reduced by the threat of steering would be reached when each determines that any further reduction in the rate will not be sufficient to cover all marginal costs, to contribute sufficiently to recurring fixed costs (including opportunity costs) and to provide for the generation of profits.[87]

As an important qualifier to the above point, the Judges emphasized that "price competition through steering does not diminish the stand-alone monopoly value *of any one sound recording*." [88] Further, effective competition through steering does not diminish the "*firm-specific monopoly value of each Major's repertoire taken as a whole*" (and the Judges rejected an argument to further reduce the statutory royalty rate on these bases).[89] More particularly, the Judges found no record evidence to suggest that the market power that a Major enjoys individually by ownership of its collective repertoire is the consequence of improper activity or that it is being used *individually* by a Major to diminish competition. That is, the Judges saw no evidence to demonstrate that the Majors' size and *individual* market power is not the result of the efficiencies and economies of scale and/or their superior operations.[90]

However, the Judges cautioned that this defense of *ordinary* oligopolies (absent evidence of *improper* attempts to restrain trade or restrict competition) must not be confused with the Judges' holding regarding the anticompetitive effects of the *complementary* oligopoly that exists among the Majors (plus Merlin).[91] Because the Majors could utilize their complementary oligopoly power to prevent price competition among them—as proven by, *inter alia*, the evidence of the pro-competitive

83. The iHeart/Warner agreement is discussed *infra*.

84. Web IV Final Determination, *supra* note 3, at 26366.

85. *Id.* at 26367.

86. *Id.* at 26366.

87. *Id.*

88. *Id.* at 26368.

89. *Id.* (emphasis added).

90. *Id.* (citing Harold Demsetz, *Industry Structure, Market Rivalry, and Public Policy*, 16 J. L. ECON. 1, 3 (1973) (noting that "scale economies," "[n]ew efficiencies" and "superior ability" can form a "competitive basis acquiring a measure of monopoly power").

91. Web IV Final Determination, *supra* note 3, at 26368.

effects of steering—the Judges found they must establish rates that reflect steering, in order to reflect an "effectively competitive" market.[92] On this distinction, the Judges noted the abundant economic support for their position, identifying "economists quite unwilling to *assume* that a given monopoly or oligopoly structure is inefficient and anticompetitive [who nonetheless] bristle at the idea that supranormal pricing arising from a complementary oligopoly is reflective of a well-functioning competitive market."[93]

SoundExchange also objected to any application to the Majors of the steering effects in the Pandora/Merlin Agreement's or the Pandora steering experiments, because a Major would not agree to such steering. The Judges found these arguments persuasive (but not dispositive), as explained below.

The experiments reflected only a *quantity* adjustment that could be attempted with regard to the Majors, not a *rate* adjustment arising from steering to or from a Major. By contrast, the Pandora/Merlin Agreement does reflect the impact of steering on negotiated *rates* (as does the iHeart/Warner Agreement). Thus, while the Judges found the steering experiments to be probative of the *general principle* that steering can be effected to some extent without a negative impact on listenership, the Judges did not accept that this constitutes direct evidence probative of the *specific* rates that would result from steering or the threat of steering *against a Major*.[94] Moreover, even Pandora's own Chief Financial Officer testified that Pandora would have to offer a higher steering-based rate to a Major than Pandora obtained in the Pandora/Merlin Agreement.[95] In this regard, the Judges also noted that the Majors' repertoires must be distinguished from those of the Indies.[96]

In sum, the Judges agreed with SoundExchange that Pandora's evidence did not support a specific steering-based rate to which a Major would agree, given its (non-complementary) oligopoly power arising from its larger and more popular repertoire and overall scale. However, the Judges *rejected* SoundExchange's broader claim that a Major could avoid steering altogether in the hypothetical effectively competitive market. As discussed below, the Judges rejected SoundExchange's arguments that the Majors would respond to a steering threat by: (1) withholding their entire repertoires;

92. *Id.*

93. *Id.* (citing Francesco Parisi & Ben Depoorter, *The Market for Intellectual Property: The Case of Complementary Oligopoly*, *in* THE ECONOMICS OF COPYRIGHT: DEVELOPMENTS IN RESEARCH AND ANALYSIS (Wendy J. Gordon & Richard Watt eds. 2003); Mark A. Lemley & Philip J. Weiser, *Should Property or Liability Rules Govern Information?* 85 TEX. L. REV. 784, 786–87, 824 (2007); and Determination of Royalty Rates for Digital Performance Right in Sound Recordings and Ephemeral Recordings (Web III Remand), 79 FR 23102, 23114 (citing testimony of SoundExchange's expert economic witness in *Web III*, Professor Janusz Ordover).

94. Web IV Final Determination, *supra* note 3, at 26372–73.

95. *Id.* at 26373 (citing Transcript of Record, Day 16 (May 18, 2015) at 4318.).

96. *Id.* (citing Determination of Rates and Terms for Preexisting Subscription Services and Satellite Digital Audio Radio Services (SDARS II), 78 Fed. Reg. 23054, 26063 (Apr. 17, 2013) (the Majors are distinguishable from the Indies "by virtue of the depth and breadth of their music catalogues [which] make up a critical portion of the sound recording market.").

(2) imposing Anti-Steering or "Most Favored Nation" contract clauses; and/or (3) requiring up-front lump sum royalty payments from the noninteractive services.

1. Withholding the Entire Repertoire

SoundExchange argued that, in an unregulated market, a Major could respond to a threat of steering by counter-threatening to withhold its entire repertoire from that noninteractive service, given that access to its entire repertoire is essential (a "must have") for the viability of a noninteractive service.[97] But this threat to "go dark" on a service, the Judges noted, would be a *function of their complementary oligopoly market power*.[98]

2. Anti-Steering or MFN Clauses

In the interactive market, the Majors commonly include anti-steering or "Most-Favored-Nation" ("MFN") clauses in their agreements with the services.[99] The Judges found that such clauses have no purchase vis-à-vis steering in exchange for lower rates in the *noninteractive* market. There, insistence by a Major that a noninteractive service abide by an anti-steering or MFN clause would be "tantamount to importing the anticompetitive complementary oligopoly power of the Majors from the interactive market into the noninteractive market."[100]

3. Require Up-Front Royalty Payments

Finally, SoundExchange asserted that a record company could frustrate a steering attempt by requiring noninteractive services to pay their royalties up-front as a lump sum, instead of on a per-performance basis.[101] Such a lump-sum requirement would frustrate steering because if a licensee has already paid Record Company A its required, up-front fee (equal to its natural/historical play level multiplied by the old, higher per-play rate) *then the marginal cost going forward to the noninteractive service of playing a sound recording from Record Company A would be zero.* By contrast, Record Company B—even

97. *Id.* At first blush, it might seem inconsistent to find that a noninteractive service could steer away from a Major, but its repertoire is still a "must have" (i.e., an essential input). But the Judges noted that even Pandora's economic witness, Professor Dr. Shapiro, "candidly declined to reject the idea that the Majors' repertoires were 'must have'" even though noninteractive services could steer away from them to an extent." *Id.* at 26373 n.155. The Judges found that he so testified because "the popularity of the Majors' [plays] is the reason why steering away from their repertoires cannot be pursued beyond a certain level." *Id.* (From a formal economic perspective, a noninteractive service needed the "access" value of a Major's repertoire, even if it could use price competition (steering) to lower the "use" or "option" value of each sound recording.)

98. *Id.* at 26373.

99. *Id.*

100. *Id.* at 26373–74 (relying on the testimony of SoundExchange's own witness, Professor Rubinfeld, that the labels would use their "*substantial bargaining power*" and "say we're going to consider not using your service." Transcript of Record, Day 23 (May 28, 2015) at 6302–05).

101. *Id.*

if it offered a reduced steering rate—would still be insisting on *a rate greater than the marginal rate of zero the licensee would be paying to Record Company A*. The noninteractive service would thus be compelled to either pay the up-front lump sum and lose the benefits of price competition, or refuse to pay the lump sum and lose access to 100% of the repertoire of Record Company A, threatening the demise of the noninteractive service.

The Judges held that "this up-front lump sum strategy in actuality is merely [yet] another way in which a Major could bootstrap its otherwise unobjectionable market power to preserve *complementary oligopoly power* in the noninteractive market."[102]

In sum, the Judges found that all three threats would constitute classic examples of the very anticompetitive conduct they were intending to avoid in setting an "effectively competitive" rate.[103] Each of the three contract devices relied upon by SoundExchange to defeat steering are dependent upon the exercise of market power to preserve the power of complementary oligopoly, which would thwart effective competition in the noninteractive market. Thus, all three contracting devices would be inconsistent with the dynamics of an effectively competitive market.

For the foregoing reasons, the Judges utilized Pandora's steering-based benchmark as evidence of an effectively competitive noninteractive royalty rates that would be paid *by Indies* in the ad supported market.[104] Although Pandora had proposed two benchmarks, depending upon the level of steering, the Judges found appropriate for rate-setting purposes the lower of the two steering alternatives presented by Pandora, i.e., the 15% steering figure, rather than the higher 30% that figure, because only the 15% steering level did not show a statistically significant is change in listening behavior according to the Pandora Steering Experiments.[105]

F. BACK TO PROFESSOR RUBINFELD'S RATIO-EQUIVALENCY MODEL TO APPLY THE "EFFECTIVE COMPETITION" ADJUSTMENT FOR THE SUBSCRIPTION RATE

The foregoing proof of concept regarding steering also needed to be integrated into the Judges' analysis of Professor Rubinfeld's ratio-equivalency model as applied to the noninteractive *subscription* model. His model did not address the economic issue revealed by the steering evidence, i.e., when a noninteractive service—*subscription* as well as ad-supported—can play more steered songs for a lower royalty and fewer songs which require a higher royalty.

Accordingly, the Judges adjusted Professor Rubinfeld's "ratio equivalency" model by importing the steering adjustment reflected by the evidence, a 12% downward

102. *Id.* at 26374.

103. *Id.* at 26373 (citing Blue Cross & Blue Shield United of Wisconsin v. Marshfield Clinic, 65 F.3d 1406, 1415 (7th Cir. 1995) (Posner, J.) ("It would be a strange interpretation of antitrust law that forbade competitors to agree on what price to charge, thus eliminating price competition among them, but allowed them to divide markets, thus eliminating all competition among them.")).

104. *Id.* at 26374.

105. *Id.* at 26374–75.

adjustment,[106] to set a statutory rate for the subscription market that did not import the supranormal pricing features from the interactive market.[107]

More particularly, Professor Rubinfeld's model applied the complementary oligopoly pricing evidence from the interactive evidence market as the record companies' opportunity cost for royalties lost to noninteractive services.[108] Thus, his "ratio equivalency" would simply sustain whatever complementary oligopoly price distortions were present in the interactive marketplace. In the present case, as explained *supra*, the ability of noninteractive services to steer away from higher priced recordings and toward lower priced recordings (or threaten to do so) serves as a buffer against the supranormal pricing that arises from the impact of complementary oligopoly power.[109]

F. iHEART RATE PROPOSAL

Occasionally, the Judges are confronted with an economic model that is not merely problematic because it is predicated on unstated assumptions; rather, its deficiencies are open and notorious. Such was the case with an important part (but not all) of iHeart's proposal for a steering-based royalty rate.

iHeart proposed a per-play rate of $0.0005 (without differentiating ad-supported and subscription services).[110] This was more than 50% below even Pandora's lowest proposed rate.

What was the model that iHeart proffered for such a substantially lower royalty rate? Like, Pandora, iHeart had entered into a steering agreement, but iHeart's agreement was with Warner—a Major.[111] The specific rate provisions were deemed confidential and proprietary and thus restricted from public view. However, a Pandora expert economic witness described the steering structure in the agreement as follows:

> As an economic matter, the [iHeart]-Warner agreement reflects a bundle of two distinct sets of rights. The first set provides a license for iHeartMedia to play the same number of Warner performances as it would have played absent the agreement. The

106. *Id.* at 26405.

107. *Id.* at 26347.

108. *Id.* at 26347–48.

109. Aside from this steering-based effective competition adjustment, the Judges found no further basis to adjust the royalty rate sought by SoundExchange as derived from Professor Rubinfeld's ratio equivalency model for the *subscription* market (from $0.0025 to $0.00225 per play in 2015). In this regard, the Judges noted that Pandora's expert, Dr. Shapiro (the only Service expert to propose a separate subscription rate), had proposed a rate of $0.0022, quite similar to Professor Rubinfeld's proposed rate, after the Judges applied the "effectively competition" steering adjustment to his proposed subscription rate. *See* at 26405. No other adjustments were required because "[i]f there was truly a material issue as to how WTP, convergence and functionality gradations impacted royalty rates in the noninteractive subscription market, the Judges would have expected to see a much wider gulf between the SoundExchange and Pandora subscription-based proposals." *Id.* at 26348 n.105

110. *Id.* at 26375.

111. *Id.*

> second set of rights provides a license for iHeartMedia to play additional Warner performances, above and beyond those it would have played absent the agreement.[112]

Thus, the structure of the steering agreement in the iHeart/Warner agreement differed from the structure of the Pandora/Merlin agreement. In the latter, a single lower rate would bind in exchange for the binding steering increase in plays. In the iHeart/Warner agreement, the statutory rate applied to plays at the historic level, but a significantly lower rate would bind for additional plays.

As the Judges explained, quoting extensively from the testimony of iHeart's economic expert, he proffered an opinion that the two-tier nature of this structure had economic significance:

> [iHeart's expert] opines that compensation for the first "bundle" of rights is directly affected by the existing statutory rate, and therefore "provides essentially no information about the rate willing buyers and sellers would negotiate in the absence of government regulation."
>
> However, [he] opines that the second "bundle" . . . is "highly relevant to what willing buyers and willing sellers would negotiate if unconstrained by government regulation." . . . [The expert testified that]:
>
> > "[t]his [second] part of the bundle involves a license for iHeart to play additional Warner performances, above and beyond those it would have played absent the agreement. Those additional performances are not directly influenced by the existing statutory rate, because absent the agreement, iHeart wouldn't play them and Warner wouldn't receive any compensation for them. The royalty rate negotiated for this second part of the bundle, therefore, is a more appropriate measure of what a willing buyer and a willing seller would negotiate if unconstrained by government regulation. Warner licensed the rights to those performances to iHeart, and iHeart compensated Warner for that license, at rates that were acceptably profitable for both parties. The rate here was not determined by regulation; it was determined by the give-and-take of a true negotiation."[113]

For several reasons, the Judges rejected the iHeart proposal. Of particular importance, the Judges found the basic premise of the approach to be erroneous. That is, in a misguided effort to avoid the so-called "shadow" of the statutory rate, iHeart's expert witnesses had essentially substituted *a rate of zero* for the sound recordings played under the existing statutory rate, which were the overwhelming majority of plays.[114] Then, these witnesses conceptually divided the expected total of performances under the iHeart/Warner Agreement into two *value*-bundles, as if the *economic* value of the agreement should track the *contractual* dichotomy in rates.[115] With this sleight-

112. *Id.* at 26376 (quoting Testimony of Daniel R. Fischel and Douglas G. Lichtman ¶ 45).

113. *Id.* (quoting Testimony of Daniel R. Fischel and Douglas G. Lichtman ¶¶ 48–49) (internal citations omitted).

114. *Id.* at 26382.

115. *Id.*

of-hand in place, the iHeart experts conceptualized the second value-bundle as a function of the number of additional performances iHeart expected to be played under the lower direct deal rate and the increase in revenues generated, and divided the *incremental* revenue by the number of *incremental* plays to determine their proposed statutory rate.[116]

The Judges called out the blatant error in iHeart's economic argument:

> This methodology intentionally attributes no market value to the rate and revenue paid for the *pre-incremental* performances. Although, as noted above, [iHeart's experts] engage in this process in order to remove the alleged impact of the "shadow" of the statutory rate, they merely replace one supposed problem with a very real and more serious problem. That is, they replace the statutory rate with an effective rate of zero for the pre-incremental performances. There was no evidence presented in this proceeding, indeed no logical evidence could be presented, to support an assertion that the bulk of the pre-incremental performances under iHeart's "two bundle" concept would be priced at zero in an actual market. To state the obvious, the creation of sound recordings is not costless, and prices are positive because costs must be recovered.
>
> Relatedly, although iHeart would like the Judges to focus only on the incremental number of performances and the incremental revenue, those incremental values cannot exist without iHeart first paying for the pre-incremental performances at pre-incremental rates. To put the point colloquially, "you cannot get there from here." That tautological point is not avoided by arbitrarily attributing a zero value to the pre-incremental performances.[117]

The Judges also made short work of iHeart's claim that its approach somehow avoided the "shadow" of the statutory rate:

> [T]to use a zero rate in order to remove the alleged shadow of the Judges' statutory rate or a settlement rate would be, to put the matter colloquially, "throwing out the baby with the bathwater." A functionally zero rate for the pre-incremental performances is an ink blot that obliterates any economic value inherent in the majority of the performances for which the rates must be established.[118]

Accordingly, the Judges rejected iHeart's incremental approach and thus rejected its proposed statutory royalty rate of $0.0005 per play, emphatically stating: "To be clear,

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116. *Id.*

117. *Id.* The Judges also analogized to a not uncommon marketing approach to illuminate the defect in iHeart's argument: Tire sellers will often advertise a special offer—a buyer can pay for three tires and get the fourth tire free. This is economically (and mathematically) equivalent to a 25% reduction in the price of four tires. No one could go to the automotive store and receive only the "free" fourth tire! (SoundExchange made a similar point, suggesting that a "buy one ice cream cone for $1, get two for $1.06" promotion did not demonstrate that the market price of an ice cream cone was only six cents.) *Id.* at 26382. A reader with a background in economics will note that iHeart's experts conflated market price with price discriminatory bundling discounts, and misapplied declining *marginal* per-unit revenue (on a downward-sloping demand curve, a/k/a the average revenue curve) to miscalculate a price that should have been measured properly based on *average* revenue per-unit. *Id.* at 26382 n.180. The relevance of *average revenue* in connection with the iHeart proposal is discussed *infra*.

118. *Id.* at 26382.

that incremental $0.0005 proposed rate does not constitute a benchmark or a guidepost which the Judges have relied for any purpose, and that incremental rate and the analysis from which it was derived has not influenced the Judges in their determination of the statutory rate in this proceeding."[119]

Fortunately, the evidentiary record provided sufficient evidence to calculate the "average" per play rate pursuant to the iHeart/Warner Agreement. That is, by applying a weighted (by number of plays) average of the historical share rate and the incremental rate, the Judges were able to calculate the effective rate paid by iHeart to Warner under this steering arrangement.[120] Thus, the Judges found that this average rate satisfied the tests for a useful benchmark that is probative of the rate that would be paid *by a Major*, as a willing seller/licensor, to a noninteractive service, as a willing buyer/licensee.[121]

More particularly, when combined appropriately with the Pandora/Merlin Agreement—which related to the value of a steering-related effectively competitive rate for *Indies*—the two agreements provided record evidence to generate a per-play royalty rate for plays across an ad-supported service.[122] The evidence at the hearing indicated that the Majors' sound recordings comprise 65% of noninteractive streams, and the Indies' sound recordings comprise 35% of such streams.[123] Combining the steering-effected rates from both agreements and applying them according to the foregoing factors, the Judges established a royalty rate of $0.0017 per-play for plays on an ad-supported noninteractive commercial service.[124]

II. CONCLUSION

A distinguished economist wrote:

> Although music listeners may not realize it, economics lies at the heart of music that is created and produced. To truly understand and appreciate music, you need to understand economics. [U]nderstanding the economics of the music industry can yield insights into how economic forces affect our daily lives, work, and society in a

119. *Id.*

120. SoundExchange agreed that *if* the Judges were to identify evidence for a statutory rate in the iHeart/Warner Agreement, it could be based on the average rate, but not the incremental rate. *See id.* at 26384 (citing SoundExchange's post-trial acknowledgement that "[t]he *average effective rate* approach … is the proper analytical method").

121. *Id.* SoundExchange (and iHeart) raised other contested issues regarding the calculation of an effective rate, principally regarding other claimed elements of value within the iHeart/Warner Agreement. However, the parties did not provide sufficient evidence of the *monetary* value of such alleged additional elements, and thus the Judges could not further adjust the effective royalty rate. *See id. passim.*

122. *Id.* at 26405 ("a fundamental difference between these two benchmarks is that the iHeart/Warner benchmark reflects an effective rate between a Major and a noninteractive service, whereas the Pandora/Merlin Agreement reflects an effective rate between Indies and a noninteractive service").

123. *Id.*

124. *Id.* The D.C. Circuit Court of Appeals affirmed the Web IV Final Determination in all respects, including specifically the economic issues discussed in this article. *See* SoundExchange, Inc. v. Copyright Royalty Bd., 904 F.3d 41 (D.C. Cir. 2018).

> myriad of ways. [T]he music industry is an ideal laboratory for witnessing economics.[125]

This Article provides one example of this relationship between economics and music. The intense battle between economists in rate setting trial proceedings such as Web IV repeat themselves on a periodic basis for statutory royalty rates set for other sound recording distribution methods and also for the royalties paid by interactive streaming services for the mechanical (phonorecords) license of the musical works (not the sound recordings) underlying the transmission of on-demand interactive plays. In these subsequent proceedings, the economists representing licensors and licensees have applied the models proffered in Web IV, and additional models from their professional toolkit. In doing so, they seek to persuade the Judges that their modeling—as applied to the new market facts demonstrated by the evidence in those proceedings—satisfies the standard of "effective competition" as developed in Web IV.

125. ALAN B. KRUEGER, ROCKONOMICS: WHAT THE MUSIC INDUSTRY CAN TEACH US ABOUT ECONOMICS (AND OUR FUTURE) 4–6 (2019).

ISSN 1544-4848
COLUM. J.L. & ARTS