STREAMING PLATFORMS AND ALGORITHMIC CURATION: ANALYZING COPYRIGHT CHALLENGES IN AI-GENERATED PLAYLISTS AND AUTO-GENERATED CONTENT

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Introduction

Not long ago, finding new music involved waiting for your favourite song to come on the radio or rifling through the CDs at a record shop. Today, though, AI-driven streaming platforms do this for us—creating customised playlists, predicting what we might like, and effortlessly mixing songs into infinite recommendations on our behalf. But there is a real copyright issue behind this convenience. Oftentimes, AI algorithms incorporate copyrighted music without explicit licensing permission, creating disputes as to fair compensation of said artwork, should be given, and who owns the rights to it, and who should be held liable. Existing statutes, including Berne Convention, WIPO Copyright Treaty, DMCA, and EU Copyright Directive, were crafted for human creators, not machines curating, remixing, and generating original content on an unprecedented scale. To address this gap, the law must change. Licensing standards must reflect just compensation standards when AI-generated playlists feature creators' work. Streaming services need enhanced transparency, so creators may monitor the usage of their music. AI accountability laws need to clarify who is responsible for whatever infringement that might come up. As artificial intelligence continues to redefine music discovery, the challenge will be to balance innovation with the fundamental rights of creators, ensuring that technology enhances—not exploits—the artistry behind the music we love.

Role of AI in generating playlists and auto-recommending content

While manual content curation has a human touch to it, it has its demerits. Having to skim through tons of data, one may miss out on essential information due to the sheer volume. Here’s where AI curation comes into the picture; machine learning models can analyze and process thousands of datasets and recommend curated content based on user behaviour and preferences in a time that takes less than that required to make instant noodles. AI crawls the internet, finds

pertinent content using preset criteria, and presents worthwhile articles, videos, and social media postings for review. To comprehend its main ideas, tone, and intended audience, it can also analyse text, photos, and even videos. This makes it possible to choose and classify stuff in great detail.

How does AI-driven curation impact copyright laws?

While this technological advancement offers unparalleled personalization and convenience, it raises complex legal questions surrounding copyright ownership, licensing, and liability. Traditional copyright frameworks assume that creative works—whether a song, a playlist, or an album—are the product of human authorship. However, AI-generated playlists and auto-curated music compilations blur these distinctions. If an algorithm selects and sequences songs in a unique way, does that playlist constitute a new creative work? If so, who holds the rights—the platform, the AI developers, or the artists whose songs were compiled?

Does AI have authorship over a generated playlist? Can a playlist be copyrighted?

Creativity is fostered by creative work products, a human intellectual product that is embodied in material, recorded, and materialized by human intelligence and can, by various means, be protected by copyright and intellectual property laws. This perspective casts doubt on the requirements of authorship and the involvement of humans. AI can generate creative work that doesn't require a traditional human writer. Parallel issues with authorship related to image creation have also been raised by the advent of image generators, like Stability AI. AI training and the corresponding risk of copyright infringement are two controversial topics. Large volumes of existing material, such as lyrics, melodies, songs, and textual works that are protected by copyright, are fed into AI models and algorithms to train them. The Recording Industry Association of America (RIAA) warned AI music generator owners that using recorded music was a violation of copyright and jeopardised their exclusive rights. AI programmers argue that the fair use clause of the law protects their use of training data and that AI-generated outputs are transformative.

In a class action case brought on behalf of numerous artists who claim AI and image generators have violated the copyright of countless works of art, both sides are currently putting their legal stances to the test.

How do streaming platforms distribute royalties for AI-generated playlists? Are artists fairly compensated when AI promotes or suppresses their content?

Beyond composing, the impacts of AI in the business of distribution of music bear undeniable consequences on royalty payments and appropriate remuneration. The playlists created by AIs are in control of visibility, thus some musicians will benefit above the others, while some will have to struggle to be heard within the music industry. In contrast, a radio station preserves royalty structures so that correspondences are fair for the artist, while similar platforms supported by subscription or ad income work with. This opens up questions of how independent artists and smaller labels could very well be overtaken by favouritism for more commercial or profitable work by AI recommendation systems. Revenue distribution models in streaming services reward artists who are already well-known, thus the algorithms amplify the popularity of already well-known musicians. Streaming platforms employ pro-rata royalty models where payouts are based on total streams rather than individual user preferences. This model greatly benefits bands with higher play counts whilst making it very difficult for new bands to receive fair compensation. The study also investigates overreaching optimization strategies employed by artists to gain exposure like tailoring songs to be included on the playlist in line with AI-favored playlist presentation. These strategies further entrench inequalities in the industry as only those artists who can afford to change to the demands of platform-specific demands gain prominence in the industry.[1]

Streaming platforms naturally have revenue distribution models that favour mainstream artists as the pro-rata royalty system stops royalty transactions from being based on individual users' subscriptions or user-specific song preference but rather operates on " the total number of streams the platform has across the platform ". This system means that the revenue that has been gathered from subscription payments on the platform is pooled together and all the artists that play their music are offered a percentage of that pool based on the total number of plays that their music accumulates in comparison to the total streams that the platform generates concerning the total streams on the platform. For example, if an artist makes 100,000 streams of their song in a month, and a mainstream popular artist receives 100 million streams of their song from another person these streams will be wholly apart from one another. Will the revenue that an independent music artist will receive in stream per month be minuscule as compared to

[1]Antoine Hnery, Impacts of AI on Music Consumption and Fairness, Sage Journals (Feb. 07, 2025, 08:53 PM) https://journals.sagepub.com/doi/epub/10.1177/27523543241269047

the revenue quotient derived from the mainstream artist, even if a user only listens to that independent artist's music? This creates a system whereby major artists who have an established following and a lot of playlist placements will tend to dominate the revenue derived from the stream, whereas the smaller or emergent musicians will have to struggle for a sustainable income.

Furthermore, algorithmic amplification within the music industry is important in perpetuating this inequality. AI-driven auto-recommendation systems such as provided playlists and artist recommendations by platforms such as Spotify work on winning the engagement of the user. The AI of such a recommendation system is designed to do this and hence play artists are seen as better able to reconcile loss of user engagement. This approach to music marketing tends to advantage the big label artists most whilst providing independence to the good of independent musicians with less exposure of hire. This "popularity bias" in practice provides a cycle where the highest play artists get a lot more so a similar cycle is perpetuated resulting in lesser-known artists being ignored or left with no exposure whatsoever. To negate the difficulties presented in today's social networking space, some independent musicians design strategies that will increase their visibility on streaming platforms. These strategies include trying to tailor the structure of the songs to the music AI's playlist preferences by creating shorter tracks which will encourage repeat listens of a song therefore following the trend thereof, ensuring that lyrics and production are emphasized within the first 30 seconds in verse, chorus, bridge or idea portions (which in a case same as a frequency count will avoid a song skipping) and producing unique music which partners with trending playlist themes that are within the protocols (e.g., "chill beats, study music, or "viral hits". Some of this music is even adapted into playlist promotion services or data analytics campaigns to see which types of music perform very well in the streaming algorithms. [2]

By the use of these optimization strategies, no one artist can access all of the strategies but independent musicians and smaller labels frequently do not have the financial resources, industry connections, and marketing expertise which are necessary to effectively manipulate these algorithmic systems hence amplifying the inequalities in the streaming ecosystem where only those able to justify the cost of paying for these additional services can gain prominence. As a result, streaming platforms inadvertently maintain the dominance of their major record

[2] Julie Knibb, Fairness in Question: Do Music Recommendation Algorithms Value Diversity?, Music Tomorrow (Feb. 07, 2025, 09:34 PM) https://www.music-tomorrow.com/blog/fairness-and-diversity-in-music-recommendation-algorithms?utm_

label in terms of which artists have the coffers and teams necessary to optimize any AI-driven systems. Some industry experts have advocated for a so-called user-centric payment system (UCPS) which would see royalty payments made according to the individual listening habits of a user rather than being pooled together where payments would be distributed amongst artists regardless of whether they listened to the user or not. This measuring model if continuously implemented would see subscription fees used exclusively by independent artists rather than shared with non-streaming mainstream artists they never listened to f the point that a user who only listens to artists with independent labels would get all their subscription fees directly into the coffers of the independent artist rather than sharing the subscription fee with mainstream artists that they never listened to. However, large streaming platforms such as Spotify, YouTube and Apple have yet to fully adopt UCPS as it would threaten the existing profit structures which massive labels and high streamers benefit from. [3]

Ultimately, the pro-rata model and algorithmic amplification work together to create a system that disproportionately rewards mainstream artists while making it increasingly difficult for new and independent musicians to break through. Without greater transparency in AI-driven recommendations, revised revenue-sharing models, and policy interventions to ensure fairer artist compensation, the music streaming economy will continue to reinforce the dominance of a select few, leaving smaller creators struggling for sustainability.

Who is Liable?

Further complicating the legal landscape is the issue of liability in cases of unauthorized use. AI algorithms sometimes include copyrighted content in auto-generated compilations without proper licensing. When such an infringement occurs, determining responsibility becomes difficult—should the blame lie with the platform, the AI developer, or the original rights holders? The lack of clear legal guidelines leaves room for disputes, making it essential to address these gaps through updated intellectual property laws.

The main problem of responsibility or the 'associated with' disputation lies in creating a music compilation using AI systems, where the copyright holders of the works are now in dispute about the responsibility where copyrighted content has been utilized without the necessity of a license. AI systems present auto-generated content by automatically suggesting music or

[3]Jonathan Wong, Algorithmic Symphonies: How Spotify Strikes the Right Chord, Illumin Magazine(Feb. 07, 2025, 09:46PM) https://illumin.usc.edu/algorithmic-symphonies-how-spotify-strikes-the-right-chord/?utm_

creating music, this raises questions of ownership, fair use and responsibility. A central gray area arises when the auto-generated AI algorithm intentionally or unintentionally utilises copyrighted works without sufficient licenses. Legal scholars claim the existing copyright framework, namely the Berne Convention and the U. S. Digital Millennium Copyright Act (DMCA), fail to provide sufficient clarity on which entity is responsible; the AI that created the content, the platform that uses the AI or the users who consume the resultant content. Recent court cases involving AI-generated content have widened, with artists suing AI companies Stability AI, Midjourney, and DeviantArt for using copyrighted content without authorization to train AI models, which created derivative work. Responsibility for curation of AI-generated music can be categorized into three core categories: platform responsibility, AI developer responsibility, and user responsibility. Policymakers and copyright organizations are advocating for reforms that make responsibility for AI-generated content clear, such as AI-compliant licensing regimes, transparency requirements, and AI responsibility laws.

Are AI-generated playlists transformative enough for fair use? How do platforms navigate licensing agreements with labels?

Fair use law is a convoluted legal issue that could have a major impact on the artificial intelligence (AI) market. Content creators have sued major companies which provide AI models over the copyright of their creations, with most of these cases still in court. Fair use allows for limited use of copyrighted material without the consent of the copyright owner for certain purposes such as commentary, criticism, news reporting, teaching, satire and parody as well as for hosting of electronic records of public performance of performances or of other copyrighted material "saturation use". However, there are no hard rules as to how much of a copyrighted work can be used for any particular case and restrictions are preventing any form of commercial use. To protect themselves against copyright suits, AI executives should consider the exploitation of large language models (LLMs) which are bound to defend the customer's copyrights. AI companies can reduce their copyright risks by incorporating a clear licensing regime, ensuring transparency in the usage of data and using governance tools to monitor compliance with the policies. They can also exercise provenance by implementing tools and processes to track data provenance and validate outputs.

The best copyright protection for AI companies is not to use copyrighted material without a licence from the copyright holder. Businesses that are developing their own AI services content

must make sure that the usage of copyrighted material satisfies as much fair use as possible. AI companies can seek indemnity from copyright infringement in large multi-party B-to-B deals as this is a common step within a multi-party B-to-B deal. However, there is a risk that the uncertainty of the potential legal ramifications of future copyright infringement potential could undermine the safe practices of the AI industry as potential questions concerning whether the content that is generated by text generation technologies will fall under the ambit of fair use and or whether AI can claim copyright of the data is a complex area that needs to be fully answered. Generative AI technologies are highly effective in generating information but present a large challenge if some of the training data has existing copyright content. If the courts find the use of copyrighted material by the platforms to be non-fair use, the platform will have to pay license fees for any such material and that can have a detrimental effect on the profitability of the platform. If AI companies are to lose their copyright lawsuits, they could enter into a licensing agreement with a large content holder or they could lobby for legislation so that ingestion of the copyrighted content by the AI company becomes a compulsory mechanical licence.[4]

What Is The Current Legal Landscape?

Copyright laws are designed to protect creators' rights over their work, ensuring they receive recognition and compensation. Various international frameworks govern these protections, with some of the most important being the Berne Convention, the WIPO Copyright Treaty, the Digital Millennium Copyright Act (DMCA), and the EU Copyright Directive. While these laws have been instrumental in safeguarding creative works, emerging technologies such as artificial intelligence are challenging their effectiveness, raising concerns about ownership, liability, and fair compensation.

The Berne Convention, established in 1886 and described as one of the oldest and most influential copyright treaties, was introduced with the fundamental principle that copyright is protected automatically from the moment that a work is created. Under this Treaty, to have their works registered is optional, meaning that, from the time it is created, those works and the rights of ownership are protected internationally without any system of registration. The Convention, in virtue of the treaty it was established by, sees to it that the intellectual property

[4] Chris Ehrlich, What AI Executives Need to Know About Fair-Use Law, VKTR (Feb. 07, 2025, 9:55 PM) What AI Executives Need to Know About Fair-Use Law

for creators is respected in all the participating nations. In times past, different extensions and agreements have been added to the treaty to deal with the technological changes in the wider world since its inception. The WIPO Copyright Treaty (WCT) is an extension of the Berne Convention that focuses on addressing the challenges that the digital age presents to copyright. It establishes that protection is afforded to computer programs, databases, and online media, just as is afforded in a traditional format.[5]

In the United States, the Digital Millennium Copyright Act (DMCA), enacted in 1998, was a landmark piece of legislation aimed at preventing digital piracy. It criminalises the act of circumventing technological measures which protect protected copyrighted material such as encryption or that which is password-protected media. In addition, the DMCA included safe harbour provisions which protected online sites like YouTube and Spotify from direct liability for copyright infringement committed by their users. However, the safe harbour is conditional and requires platforms to promptly remove infringing material on receiving a valid takedown request. Despite ample ratings, critics of the DMCA argue that the DMCA is overtly dated and does not provide adequate protection against modern challenges introduced by AI-generated content and automated curation systems.

In Europe, the EU Copyright Directive, particularly the Directive on Copyright in the Digital Single Market, aims to update copyright laws for the Internet age. The directive would hold online platforms responsible for the content they host, placing obligations on them to install more consistent content recognition technologies to prevent copyright violation. In addition, it was meant to secure fair compensation for creators from digital platforms profiting from their work.[6] However, it has always been the talk of the town, and its critics say that the power of automated copyright enforcement may lead to over-removals and obstruction of creativity. The Superman Rights Dispute exemplifies the conflicting nature of copyright enforcement in today's rapidly changing digital environment; the estate of Joseph Shuster-the co-creator of Superman-sued DC Comics for using the character beyond the duration of the character's international rights. This case exemplifies the challenges of truly implementing long-term copyright protections across various jurisdictions and provides a backdrop for deeper questions

[5]Berne Convention for the Protection of Literary and Artistic Works
https://www.wipo.int/treaties/en/ip/berne/?utm_
[6] The EU copyright legislation
https://digital-strategy.ec.europa.eu/en/policies/copyright-legislation?utm_

regarding how these protections ought to be enforced across international borders.[7]

Another emerging issue concerns AI-generated content and whether AI models that are trained on copyrighted works will constitute infringement. Several lawsuits have been served against tech firms for the use of copyrighted material to train their artificial intelligence (AI) systems without proper consent. In one case, Getty Images filed a lawsuit against Stability AI whereby it was alleged that the company harvested millions of copyrighted images to train its AI system and when generating outputs, it would still produce fragments of the Getty's watermark images. The filing of the case has sparked intense debate around whether AI-generated content should be classified as a derivative work or a new creation and whether existing copyright laws are equipped to handle the challenges presented by these cases.[8]

As technology continues to evolve, copyright laws must adapt to ensure fairness and clarity for creators, platforms, and users alike. While frameworks such as the Berne Convention and the DMCA have provided foundational protections, new regulatory approaches are needed to address the complexities of AI-driven content creation and automated curation systems. Striking a balance between innovation and intellectual property rights will be essential in shaping the future of copyright law in the digital era.

Conclusion

Copyright laws have to change to address how music playlists are curated and generated by AI. Existing copyright standards like the Berne Convention, WIPO Copyright Treaty, DMCA, and the EU Copyright Directive provide a basis from which to protect intellectual property associated with sense works, however, the current frameworks struggle to regulate the role that AI has in generating Automated music curation processes. Since the automated music playlists rely on a vast number of datasets that include copyrighted songs platforms have to be held responsible for ensuring that proper licensing agreements are in place before music can be used in AI-generated compilations. One possible way of solving this issue is the adoption of transparent AI licensing models in which a streaming service must acquire the explicit rights

[7]Joe Flint, Lawsuit Aims to Ground 'Superman' in Major International Markets,The Wall Street Journal (Feb. 08, 2025, 10:04 AM) https://www.wsj.com/business/media/lawsuit-aims-to-ground-superman-in-major-international-markets-d3e90555?utm_

[8] Eric Posner, More on Section 7 of the Torture Convention, THE VOLOKH CONSPIRACY (Jan. 29, 2009, 10:04 AM) https://www.theguardian.com/technology/2025/jan/31/the-guardian-view-on-ai-and-copyright-law-big-tech-must-pay?utm_

to train AI on copyrighted music. These models would involve royalty-sharing agreements. The incorporation of royalty-sharing agreements would ensure that artists get compensated when their music is used in AI-generated playlists. An alternative solution is to strengthen the takedown mechanisms in place under the DMCA and EU Copyright Directive which would require AI systems to act on detecting unauthorized use of copyrighted material before the playlists are published. Furthermore, policymakers could begin to introduce the idea of AI accountability laws which mandate that platforms are required to disclose the structure of their practices of recommendation algorithms as well as whether it is likely that the platform chooses to prioritize licensed or unlicensed content. This would help to reduce the risk of copyright infringement as well as permit artists to choose whether they wish to opt into AI-created music curation and whether they want to opt out of it. As AI becomes a dominant force in the music industry, ensuring fair copyright protection will require a combination of stricter regulations, licensing reforms, and greater transparency in AI-generated content management.