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Navigating the Convergence of Artificial Intelligence and Music Composition: Labor and Attribution

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Abstract

Generative AI music systems enter a production environment in which composers are already asked to work quickly, respond to temp tracks and stylistic references, deliver modular revisions, and produce music whose commercial value may depend on functional similarity. This paper examines AI music through the linked problems of labor, attribution, and platform governance. It argues that generative systems are especially disruptive where musical work has already been standardized around speed, style replication, and low-cost synchronization. The analysis distinguishes human influence from model training, separates attribution from copyright ownership, and treats human authorship as a gradient of documented expressive contribution. It then examines the movement from post-hoc AI detection toward provenance-by-design: licensed-source metadata, generation logs, content credentials, watermarking, labeling, and royalty routing. Developments in 2025–2026—including licensing settlements, GEMA's litigation against Suno, Spotify's licensed remix initiative, Music IP Holdings' patent framework, and investment by major entertainment companies in generative-AI infrastructure—show that governance is increasingly embedded in product architecture and capital relationships. The paper concludes that accountable co-creative systems require permissions, provenance, transparent human contribution, and remuneration mechanisms that reconnect generated outputs to the creative labor and catalogs on which they depend.

Keywords: generative AI music; composer labor; attribution; provenance; copyright; platform governance

1. Introduction

Humans have long transformed existing musical practices through inspiration, quotation, imitation, pedagogy, satire, repetition, and stylistic study. In composition training, copying and modeling established works can be legitimate methods for learning form, orchestration, harmony, and genre. Copyright therefore does not regulate influence in the abstract. It becomes relevant when borrowing approaches protected expression closely enough to raise questions of reproduction, derivation, or substantial similarity (Sturm et al., 2019; O'Connor, 2022).

Generative AI intensifies this older problem because it can deliver finished musical outputs from prompts, references, partial drafts, voice conditioning, or style descriptors. Three questions follow. First, which forms of composer labor are most vulnerable to substitution or reclassification? Second, how does AI destabilize attribution across users, platforms, training data, musical works, sound recordings, performances, and generated outputs? Third, what licensing and provenance mechanisms could reconnect compensation to creative labor?

The central argument is that AI music is most disruptive where commercial composition is already organized around style replication, speed, modularity, and functional similarity. In those settings, AI is not simply a new compositional tool. It can automate a bundle of production tasks and redistribute agency among composers, users, model developers, catalog

owners, distributors, and streaming platforms. This redistribution makes authorship inseparable from labor and from the infrastructures through which music is generated and monetized.

1.1. Scope and Method

This paper develops a critical and interdisciplinary synthesis rather than an empirical causal study. It combines scholarship on algorithmic composition, music copyright, political economy, and critical AI with market evidence, regulatory documents, litigation, and platform announcements. The analysis is organized around the production pipeline of media composition and asks how technical affordances alter labor roles, evidentiary practices, and revenue allocation. Recent corporate announcements are treated as evidence of emerging business structures, not as proof that any single market model will prevail.

2. Composition as Tool-Mediated Labor

Music composition has always been tool-mediated. Rule-based procedures, notation systems, instruments, recording technologies, DAWs, MIDI, arpeggiators, algorithmic systems, and interactive software shape what composers can imagine and produce (Cope, 2000, 2008; Rowe, 1993). Many compositional procedures can be formalized: motive transformation, harmonic selection, rhythmic development, orchestration, variation, and formal expansion. Yet formalizability does not make human composition equivalent to machine generation. Human practice also involves situated intention, embodied listening, cultural memory, self-critique, negotiation, and responsibility for aesthetic choices.

The distinction becomes labor-specific in media production. Directors and editors often work with temp tracks or stock references that define a narrow field of acceptable similarity. A composer may be asked to preserve pacing, affect, instrumentation, density, or montage function while avoiding infringement. Late-stage editing adds pressure for cues to be modular, replaceable, and rapidly revised; game music adds vertical layering and horizontal re-sequencing. These conditions create a natural niche for generative systems because similarity, variation, and speed are already commercial requirements.

The most exposed labor is therefore not necessarily composition as a whole. It is work already framed as utilitarian, style-bound, modular, quickly revised, and weakly attached to a named authorial identity: library music, advertising drafts, background cues, social-media content, low-budget synchronization, and placeholder material. At higher levels of production, AI may instead operate as sketching, mockup, stem-generation, or variation software under the supervision of an experienced composer or producer. The labor question is consequently broader than replacement: it includes augmentation, role conversion, intensified output expectations, and revaluation of visible human craft (Anand, 2025; Atanasovski, 2024).

3. Platform Logics, Markets, and Creative Infrastructure

Generative music develops within a platform economy that rewards throughput, retention, subscription, and scalable user participation. Creation interfaces can combine generation, remixing, social sharing, distribution, and monetization in the same environment. Under this model, speed itself becomes a product value: iterate faster, produce more variants, and keep

users inside the platform. The economic center of gravity can therefore move toward companies positioned to control models, interfaces, rights metadata, distribution, and user data (Drott, 2020; Pelly, 2025).

A critical AI perspective asks not only whether an output is musically convincing, but what infrastructure the system normalizes. In music, this includes which forms of labor become hidden when creation is mediated through models and platforms, and whether access to generation tools is confused with access to the social conditions that sustain musical culture: teachers, scenes, rehearsal practices, peer critique, venues, mentorship, and time (Holmes et al., 2025; Novak & Sakakeeny, 2015).

Market evidence indicates that synthetic music is no longer speculative. Luminate Intelligence (2026) documents AI recording artists competing for streams and royalties while consumer sentiment remains ambivalent and often becomes more negative when AI use is perceived as deceptive or insufficiently labeled. These findings do not predict long-term adoption, but they make transparency and trust economically relevant alongside technical quality.

4. Style, Similarity, and Human Authorship

Music plagiarism disputes commonly turn on access and similarity. Style itself is generally not protected as such, although stylistic features can become legally relevant when they overlap with protected expression, market substitution, likeness, false endorsement, or contractual restrictions. The “Blurred Lines” dispute became a warning about the possible role of stylistic feel in substantial-similarity analysis, while later cases involving common musical building blocks have reinforced judicial caution against monopolizing ordinary musical vocabulary (O’Connor, 2022; Stav, 2016).

AI changes the evidentiary structure. Human influence is embodied and often reconstructed retrospectively. Model training is systematic, scalable, commercially deployed, and potentially recordable. A model trained on a catalog and queried toward a particular artist, recording, or style can create a documented chain of access and conditioning. The analogy between human inspiration and machine training is therefore incomplete even when neither process guarantees that a particular output infringes copyright.

Current U.S. copyright policy continues to center human authorship. The U.S. Copyright Office distinguishes autonomous AI output from AI-assisted work in which human selection, arrangement, modification, performance, or integration may supply protectable expression (U.S. Copyright Office, 2025a). This produces an authorship gradient rather than a binary. Prompting alone may contribute little protectable authorship, while substantial editing, arranging, performance, and production can make human contribution increasingly legible.

Attribution should also be separated from ownership. A generated audio file can implicate composition, lyrics, sound recording, performance identity, arrangement, stems, and final master as distinct objects. A platform may control an output contractually without becoming its copyright author, and a work may fail to qualify for copyright while still producing platform revenue. These distinctions matter because the business system can allocate value even where doctrinal authorship remains uncertain (Bulayenko et al., 2022; Ramalho, 2017).

5. Training Data and Provenance-by-Design

The strongest attribution problem may lie upstream in the labor embedded in training data. It is too broad to treat every training-set contributor as the legal author of every output. A more workable frame is provenance-based compensation. When a licensed catalog conditions a model, or when a generation is deliberately directed toward identifiable works, artists, voices, or recordings, the system can document those dependencies and connect them to permissions and payment (Drott, 2020; Morreale et al., 2025; Odita, 2025).

Post-hoc detection is useful but structurally weak. Generated audio can be edited, mastered, compressed, sampled, or mixed with human performance, and formulaic genres already contain substantial human-to-human similarity. Provenance-by-design moves evidence earlier in the process. Generation logs, licensed-source metadata, prompt and reference records, content credentials, fingerprints, watermarks, rights registries, and royalty-routing infrastructure can document creative dependencies before circulation.

This approach changes the function of attribution. Rather than attempting to identify an ultimate metaphysical origin, the system records relationships relevant to permissions, revenue allocation, and accountability: which model was used, which licenses governed its sources, what references conditioned the generation, whether a protected voice or identity was invoked, what human edits were performed, and where the result entered distribution. Attribution then becomes both a cultural claim and an auditable component of the value chain.

Mechanism	Primary function	Governance implication
AI-generated / AI-assisted label	Discloses synthetic involvement.	Supports transparency; does not by itself route compensation.
Content credential / watermark	Carries machine-readable provenance.	Supports downstream identification and policy enforcement.
Generation log	Records model, prompt, settings, references, and time.	Creates evidence for disputes, licensing, and human-contribution claims.
Licensed-source metadata	Connects model use to authorized catalogs.	Enables auditability and payment when rights databases are interoperable.
Royalty routing / collective licensing	Returns value to participating sources.	Addresses remuneration when individual causal attribution is difficult.

Table 1. Provenance and attribution mechanisms for generative music governance.

6. From Litigation to Licensed Infrastructure

Recent legal and commercial developments show a movement from abstract debate toward governance through licensing, transparency, and product architecture. The European Union AI Act requires providers of systems that generate synthetic audio and other media to support machine-readable identification of artificially generated or manipulated content (European Parliament and Council, 2024). In the United States, the Copyright Office separates copyrightability from training: Part 2 centers human authorship, while Part 3 treats

generative-AI training through fair use, licensing, and market-harm analysis (U.S. Copyright Office, 2025a, 2025b).

The litigation-to-licensing shift accelerated in 2026. On July 31, the Munich Regional Court ruled in GEMA's favor against Suno, finding infringement connected to training on GEMA repertoire and to storage and reproduction in Europe (GEMA, 2026). On August 12, BMG and Suno announced a global alliance covering BMG recorded and publishing repertoire, including opt-in participation and compensation and settlement of prior uses (BMG, 2026). Suno subsequently introduced an industry-partnered v6 model and partnerships intended to connect generated work to authorized distribution channels (Suno, 2026c, 2026d).

Suno has also moved provenance and distribution control into the product layer. Its 2026 policies introduced audio watermarking, fingerprinting, Content Credentials, and tiered download limits intended to reduce mass off-platform distribution (Suno, 2026a, 2026b). These measures do not resolve the legality of all training practices, but they illustrate a broader transition: provenance signals and export restrictions are becoming technical conditions of participation.

Rights governance is simultaneously becoming a field of patent and platform design. Music IP Holdings, formed through a strategic relationship involving Universal Music Group and Liquidax, announced a portfolio covering stages from prompt entry through moderation, watermarking, authorization, licensed distribution, and payment; Udio and GRAI were its first licensees (Music IP Holdings, 2026). Spotify has separately assembled agreements with UMG, Merlin, and Kobalt for a paid AI-powered covers and remixing tool based on participating repertoires, credit, and compensation (Spotify, 2026a, 2026b, 2026c). In September, UMG and ElevenLabs announced another licensed platform for fan remixes, mashups, new interpretations, and personalized vocal experiences (Universal Music Group, 2026).

Transparency standards are developing in parallel. In July 2026, IFPI, RIAA, A2IM, WIN, IMPALA, the Recording Academy, SAG-AFTRA, and the Human Artistry Campaign announced a voluntary track-level framework distinguishing "AI-Generated" from "AI-Assisted" sound recordings (IFPI, 2026). The framework is important precisely because it is not a mandatory copyright rule: it demonstrates how industry metadata and distribution standards can govern circulation alongside formal law.

7. Capital Integration and the Political Economy of AI Music

The emerging structure goes beyond litigation and licensing. In August 2026, Stability AI announced a $76 million Series B round with investors including Electronic Arts, Sony Music Group, Universal Music Group, Warner Music Group, AMD Ventures, and Pacific Alliance Ventures (Stability AI, 2026). Stability AI also describes Stable Audio 3.0 as trained on fully licensed data. These developments matter because established rights holders can now participate in generative AI simultaneously as catalog owners, licensors, strategic partners, and investors.

This produces what may be called rights-holder/platform convergence. Compensation may increasingly be distributed through several layers at once: copyright royalties, catalog licenses, platform subscriptions, patent rents, distribution fees, and equity appreciation. The arrangement may support more authorized forms of innovation, but it also raises a distributional question. The value of a catalog is produced by artists, songwriters, performers,

producers, and communities, while the enterprise value of AI infrastructure may accrue at a different institutional level. A provenance system is therefore incomplete if it can identify sources but cannot connect those sources to meaningful remuneration.

8. Scenarios for Labor and Monetization

No single outcome is likely to describe the entire music economy. The following scenarios can coexist across different budgets, genres, institutions, and audience expectations.

Scenario	Likely domain	Labor effect	Monetization / rights effect
Direct replacement	Utility cues, stock/background media	Composer labor shifts toward prompting and curation; unit price may fall.	Platform terms and service access dominate.
Augmentation	Professional composition and production	AI accelerates drafts and variants; supervision and editing become more important.	Human contribution must be documented; productivity expectations may rise.
Licensed walled garden	In-app covers, remixes, fan derivatives	New participatory roles emerge inside controlled ecosystems.	Opt-in catalogs, metadata, download controls, and royalty routing govern circulation.
Rights-holder/platform convergence	Licensed model and infrastructure investment	Creative labor sits inside vertically connected catalog/model/distribution systems.	Value can flow through licenses, patents, fees, and equity as well as royalties.
Human-authored premium	Live, verified, or explicitly human-made work	Performance, craft, and reputation become scarcity markers.	Provenance and labeling can support trust and differentiated market value.

Table 2. Coexisting labor and monetization scenarios for AI music.

Direct replacement is most plausible where music is treated as interchangeable functional content. Augmentation is more likely where a professional remains responsible for aesthetic judgment, client communication, revision, and delivery. The distinction matters because augmentation can still intensify labor: a composer who previously delivered ten cues may be expected to deliver many more variants, stems, and alternates without a proportional increase in compensation.

Licensed walled gardens are no longer only a forecast. Spotify's planned remix product, Suno's industry-partnered model and download controls, Udio's licensed initiatives, and UMG's ElevenLabs collaboration point toward environments in which generation, fan participation, rights management, and distribution occur inside governed systems. These environments can return value to participating rights holders while also increasing platform control over circulation.

A contrasting scenario is human-authored premium value. As synthetic music becomes abundant, some audiences and institutions may place additional value on verified human authorship, live performance, visible craft, and accountable creative process. This should not be treated as a universal rescue mechanism for composers. It is better understood as a possible

counter-market in which human relation and scarce performance labor become explicit components of value.

8.1. Contractual Consequences for Composers

The next phase of AI music may become contractual before copyright doctrine is fully settled. Distribution, publishing, sync, and production agreements can specify whether delivered works may be used for training; whether artists opt in to voice, likeness, or composition-based generation; whether AI-assisted material must be labeled; whether derivatives may leave a platform; and how revenue is divided. Composers using AI may therefore need to preserve evidence of human contribution: sketches, DAW sessions, prompt histories, edited stems, performances, arrangement decisions, cue sheets, and production notes. Composers who avoid generative AI may likewise choose to document that status when human authorship functions as a market signal.

9. Conclusion

The convergence of AI and music composition requires a revised account of attribution because production labor, style replication, copyright, and platform governance now meet inside the same technical pipeline. AI is most disruptive where commercial composition is already organized around functional similarity, rapid iteration, modular delivery, and low-cost synchronization. The labor problem is therefore not replacement alone; it includes role conversion, intensified production, and the possible devaluation of skills that are difficult to measure as output volume.

Attribution frameworks must account for the full production chain: training sources, licensing status, prompting and conditioning, human editing and performance, distribution, and monetization. Provenance-by-design offers a stronger accountability model than retrospective detection because it creates evidence while music is being generated and licensed. The 2026 movement toward watermarking, content credentials, voluntary AI labels, licensed remix environments, and rights-aware platforms suggests that this infrastructure is technically and commercially plausible.

The newest developments add another layer. Rights holders are not only challenging AI companies; they are licensing models, participating in product design, adopting patent frameworks, and investing in generative infrastructure. The institutional question is consequently not only who owns an output, but who owns and governs the systems through which AI music is created, verified, circulated, and monetized.

A workable co-creative ecology should therefore make both human contribution and source dependence legible. Explicit permission, opt-in controls, transparent labeling, provenance metadata, auditable creative histories, and fair remuneration can connect technical innovation to the labor and cultural inheritance on which it depends. Human craft retains particular value where musical labor remains socially visible, accountable, and relational.

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