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From Atom to Bit: The Ontology and Epistemology of Music in the Transition of Record Labels from Physical Media to Streaming

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ABSTRACT
This conceptual study examines the ontological and epistemological transformation of music amid the structural shift of the recording industry from physical formats (atoms) to digital streaming platforms (bits). Ontologically, music is no longer primarily understood as a tangible commodity embodied in vinyl, cassettes, or compact discs, but as an immaterial, infinitely reproducible flow of digital data circulating across networked platforms. Its existence is increasingly shaped by algorithms that determine visibility, accessibility, and circulation, redefining music as a process rather than a fixed object. Epistemologically, knowledge about music—such as artistic value, popularity, success, and cultural legitimacy—is progressively constructed through datafication, including streaming counts, playlist placements, user analytics, and algorithmic recommendations. These metrics function as new regimes of truth that influence how music is evaluated, discovered, and consumed. Together, these ontological and epistemological shifts fundamentally reshape the role of record labels. No longer acting solely as centralized producers and distributors of physical products, record labels increasingly operate as curators, brand managers, and data analysts within a platformized digital ecosystem. They must navigate computational logics, negotiate with streaming platforms, and interpret audience data to sustain relevance. Drawing on global industry trends while incorporating contextual insights from Indonesia's rapidly growing digital music market, this study highlights how the convergence of digital ontology and computational epistemology transforms not only the nature of music itself, but also the institutional logic, power relations, and strategic practices governing its production, distribution, and cultural meaning in the contemporary music industry.

Keyword: Ontology; Epistemology; Streaming; Algorithm.

INTRODUCTION

The development of digital technology and the proliferation of streaming platforms have brought fundamental changes to the global music industry, particularly in the way music is produced, distributed, and consumed by audiences (Guo, 2023; Hesmondhalgh, 2021). The transition from physical media such as cassettes, compact discs, and vinyl to digital-based platforms marked a shift in the medium from atoms to bits, which not only represented a change in technical formats but also a transformation of the essence of music as a cultural and economic entity (Gekker, 2021; Jansson, 2021). Music that was previously present as a stable, limited, and possessable material artifact is now transformed into a digital data stream that is fluid, infinitely replicable, and accessible through platform infrastructure (Hagen, 2021; Latzer, 2022).

These changes indicate an ontological shift, in which music is no longer understood as a stand-alone physical object but rather as a digital-processual entity whose existence depends on data, algorithms, and platform systems (de Berardinis et al., 2025; Gekker, 2021). In this digital ontology, music is present as an informational object that continues to be modified, curated, and recontextualized through algorithmic mechanisms and cloud-based infrastructures (Latzer, 2022; Riom, 2024). This ontological shift challenges the classical understanding of the

ownership, authenticity, and stability of musical works that was inherent in physical media regimes (Lal et al., 2023).

Along with these ontological changes, there has also been an epistemological shift in the way knowledge about music is produced and legitimized in the industrial ecosystem (Qu et al., 2021; Zhang & Negus, 2021). In the traditional recording industry, the value of music was determined through human curators, media criticism, and physical sales-based economic indicators that reflected the ownership economy (Hesmondhalgh, 2021). However, in the streaming ecosystem, the practice of listening to music is datafied, where every audience interaction is recorded and processed into listening traces that form the basis for recommendation algorithms and ranking systems (Júnior & Ribeiro, 2022; Walsh, 2023).

As a result, knowledge of the value and success of music is increasingly determined by quantitative metrics such as the number of streams, playlist visibility, and algorithmic performance, thus shifting epistemic authority from human criticism and curation to data-driven knowledge systems and algorithms (Prey, 2016; Webster, 2021). Algorithms and metrics function as epistemic actors that shape perceptions of musical truth and cultural legitimacy through algorithmic governance mechanisms and metric power (Maasø & Spilker, 2022; Muchitsch & Werner, 2024). This epistemological shift shows that music is not only changing as an object but also as an object of knowledge in the digital industry (Hesmondhalgh, 2021).

These changes in musical ontology and epistemology are intertwined and have a direct impact on the position and role of record companies in the digital music industry (Nieborg et al., 2021). Record companies that previously functioned as gatekeepers of physical production and distribution must now adapt in a platform ecosystem controlled by data logic and algorithms (Arenal et al., 2022; Ramesh, 2024). In this context, music labels are repositioned as strategic actors that manage metadata, analytics, and cross-platform visibility orchestration, while existing in an asymmetrical dependency relationship with digital platforms that dominate the ontological and epistemological infrastructure of the contemporary music industry (Ta et al., 2024; C et al., 2021).

Therefore, understanding the transformation of the music industry in the streaming era cannot be achieved through economic or technological approaches alone but requires a conceptual analysis that integrates the ontological changes in music, the epistemological shift in music knowledge, and its implications for the repositioning of record companies in the digital platform ecosystem (Latzer, 2022; Poell et al., 2023). This ontological–epistemological approach is important to explain how music, knowledge, and cultural industries are reconstructed in the context of the platform economy and contemporary data culture.

Specifically, this study examines how music is redefined as an immaterial digital entity and how knowledge of music is increasingly shaped by data, algorithms, and platform metrics. The benefits of this research are expected to make a theoretical contribution to the development of digital culture studies and creative industry studies by offering a conceptual framework for understanding music in the platform ecosystem. In addition, the results of this study are expected to serve as a practical reference for recording industry players, musicians, and policymakers in formulating adaptive strategies that are more critical and sustainable in

response to the dynamics of the digital music industry, especially in the context of developing countries such as Indonesia.

METHOD

This research employed a qualitative approach with an interpretive paradigm. In this context, music was understood not only as an aesthetic object but as a cultural entity whose meaning, value, and knowledge changed with the transformation of distribution technology from physical media to digital streaming platforms.

The research design was a conceptual study (Swedberg, 2016). This design was relevant because the purpose was not to empirically test variable relationships but to analyze ontological and epistemological changes in music and their implications for the position of record companies in the digital music industry.

The object of this research was non-empirical, focusing on concepts, ideas, and theoretical frameworks related to digital music, cultural values, and the recording industry. The analysis targeted three main aspects: the change in music ontology from physical objects to digital data streams, epistemological shifts in the production and legitimacy of music values, and the impact of these ontology-epistemological relationships on the repositioning of record companies in the global streaming ecosystem.

The type of data used was qualitative, in the form of academic texts including theoretical arguments, conceptual definitions, and analytical frameworks from journal articles and scientific books (Bowen, 2009). These data represented academic discourse shaping understandings of music, technology, and the cultural industry in the digital era.

Data sources consisted of academic literature relevant to the study topic, including internationally reputable journal articles and theoretical books in media, music, culture, and digital political economy. Sources were selected purposively based on relevance, analytical depth, and contribution to discussions of digital music ontology and epistemology (Snyder, 2019).

Data collection occurred through library research, involving systematic searches, identification, and compilation of academic literature aligned with the research focus (Bowen, 2009). This process provided access to diverse theoretical perspectives without field data.

Collected literature was selected and classified by theme, grouping into categories of music ontology, value epistemology, and recording industry dynamics. This facilitated conceptual analysis and ensured direct contributions to research objectives.

Data analysis was conducted qualitatively using an interpretive and reflective approach. Critical reading of the literature identified thought patterns, basic assumptions, and conceptual relationships across theoretical perspectives (Jabareen, 2009). Results were then integrated through conceptual synthesis to develop a coherent understanding of changing music ontology and epistemology and their implications for record companies in the digital music industry.

Conceptual synthesis linked theoretical findings from various sources into a unified analytical framework. This process formulated understandings of changing meaning, value, and roles of music industry actors in the streaming era, forming the basis for results and discussions.

Analysis validity was maintained through consistent argumentation, theoretical logic integration, and triangulation of conceptual perspectives. Multiple theoretical views were compared to avoid single-perspective dominance, ensuring reflective and critical interpretations supported by analytical depth and coherent synthesis.

RESULTS AND DISCUSSION

The Evolution of Music Ontology and Epistemology in the Streaming Era

In the traditional recording industry regime, music is understood primarily as material artifacts embodied in physical mediums such as cassette, vinyl records, and compact discs, whose existence is inherent in the form of objects that can be touched, owned, and moved in a limited way (Hesmondhalgh, 2019). The ontology of music in this context is materialistic, where the existence of music is determined by the existence of physical objects that become a container for sound recordings and at the same time become authentic evidence of a musical work (Kallinikos, 2013). Music does not exist as a stand-alone entity, but is always tied to a material medium that conditions the way it is produced, stored, and consumed by the listener (Frith, 1996).

This artifact-based ontology also builds a strong logic of ownership, as the value of music is associated with physical ownership of the recording medium, both by consumers and by recording industry institutions (Hesmondhalgh, 2019). Within this framework, music is scarce, as the number of physical copies in circulation is limited by the production, distribution, and logistics capacity of the recording industry (Morris & Powers, 2015). This scarcity is the main basis for the formation of musical economic value, where the sale of physical units is the main indicator of the success of a work (Negus, 1999).

Control over physical distribution reinforces the record company's position as a central actor in the music ecosystem, as access to recording studios, printing plants, and distribution networks is almost entirely in the hands of labels (Hesmondhalgh, 2019). In this context, record companies function as gatekeepers who determine which works are suitable for recording, production, and distribution to the market (Negus, 1999). This position is not only economic, but also ontological, because labels have the power to determine the final form of music's existence as a legitimate and valuable physical object (Kallinikos, 2013).

Furthermore, record companies also play the role of master record owners, which are material and legal entities that represent the "original" existence of a musical work in the recording industry system (Morris, 2014). This master's possession reinforces the ontology of music as a stable and fixed object, since the existence of the work is locked in a specific form of recording that is not easily altered or modified (Hesmondhalgh, 2019). Thus, in traditional regimes, music is understood as a static artifact whose existence depends on the physical medium and the structure of industrial ownership (Frith, 1996).

The development of digital technology and the emergence of streaming platforms have shifted the ontological understanding of music from material artifacts to digital entities represented through digital representation and bitstream (De Masi, 2021). In this context, music is no longer present as a fixed physical object, but rather as a series of digital data that can be accessed temporarily through a network of platforms (Floridi, 2014). This shift marks

a fundamental change in the way music "exists", as its existence is no longer tied to a specific material medium (Kallinikos, 2013).

As a digital entity, music can be replicated infinitely at a marginal cost that is close to zero, making the logic of scarcity that previously underpinned the ontology of physical music increasingly irrelevant (Morris & Powers, 2015). This seamless replication transforms music into an informational good whose value and existence are determined by the access system, not ownership (Floridi, 2014). Thus, music is no longer understood as an object that is owned, but as a service or flow of information that is consumed repeatedly through digital platforms (De Masi, 2021).

In the framework of informational ontology, music can be understood as part of informational being, namely an entity whose existence is determined by its relationship in a broader information system (Floridi, 2014). This ontology places music on a par with other forms of digital information, such as data, metadata, and algorithms, which together make up the contemporary digital ecosystem (De Masi, 2021). As a result, music no longer stands as an autonomous work, but as a node in an information network that continues to be processed and mediated by digital technology (Kallinikos, 2013).

These ontological changes also have an impact on the way the music industry understands the value and identity of works, as the value of music is no longer attached to physical objects, but to the visibility, accessibility, and circulation of data within streaming platforms (Morris, 2014). In other words, the existence of music as a digital entity is relational, depending on the technical and institutional systems that allow the music to be accessed and recognized (Floridi, 2014). This shows that the transition to digital is not just a change in format, but a fundamental transformation of music ontology (De Masi, 2021).

In the platform ecosystem, music is increasingly understood as music-as-data, which is a digital object that is fluid, can be modified, and is constantly updated through algorithmic processes (Gekker, 2021). As a mutable digital object, music does not have a stable final form, as its representation can change through remixes, algorithmic recommendations, and playlist curation (Kallinikos, 2013). This fluidity marks a sharp ontological difference between digital music and physical music that was previously fixed and closed to change (Gekker, 2021).

The concept of cloud culture explains that digital objects, including music, are no longer stored or accessed locally, but are located in a distributed and always-on platform infrastructure (Gekker, 2021). In this context, music exists as part of a cloud system that allows for continuous data processing, both for recommendation, analytics, and monetization purposes (Poell, Nieborg & van Dijck, 2023). Thus, algorithms and platforms become not only distribution channels, but also an existential environment where music is "lived" and interpreted (Latzer, 2022).

Latzer (2022) calls this condition the digital trinity, which is the close relationship between datafication, algorithmization, and platformization that forms a new ontology of digital life, including in the context of music. Music as data is not only recorded and stored, but is constantly analyzed, ranked, and recontextualized by algorithmic systems (Latzer, 2022). This process makes the existence of music dependent on the platform infrastructure that governs how music appears, is distributed, and is valued (Poell et al., 2023).

In this new ontology, music can no longer be understood as a stand-alone work, but rather as a procedural entity whose existence is determined by the dynamic relationship between data, algorithms, and platforms (Gekker, 2021). This shows that the ontology of digital music is contingent and constantly changing, following the technical and economic logic of the platforms that house it (Latzer, 2022). Thus, music-as-data represents an ontological shift from stability to dynamics, from objects to processes (Kallinikos, 2013).

The transformation from music as a physical artifact to music as a digital-processual entity shows a fundamental ontological shift in the music industry (De Masi, 2021). The ontology of music no longer rests on the existence of stable material objects, but on the circulation of data mediated by algorithms and digital platforms (Floridi, 2014). Within this framework, the existence of music depends entirely on the infrastructure of the platform that allows music data to be produced, processed, and interpreted in a sustainable manner (Latzer, 2022). This shift has become the conceptual foundation for understanding the epistemological changes and repositioning of record companies in the contemporary digital music ecosystem (Poell, Nieborg & Duffy, 2021).

Shifting Music Epistemology: Knowledge Production and Value Legitimacy in the Data Age In the streaming ecosystem, the practice of listening to music is no longer understood simply as an individual aesthetic experience, but rather as an activity that generates data and serves as a source of epistemic knowledge about musical tastes and values (Prey, 2016). Every action of the user, playing a song, skipping a certain section, repeating, or liking, is recorded by the platform's system and converted into listening data that can be analyzed computationally (Prey, 2016). This process marks the occurrence of listening datafition, where the subjective experience of the audience is reduced to units of data that can be calculated, compared, and modeled (Beer, 2017).

The concept of listening traces explains how digital traces of listening activities function as epistemic evidence that replaces previous forms of musical knowledge, such as music criticism or human curatorial judgment (Prey, 2016). These traces not only represent individual preferences, but are also accumulated to form collective knowledge about trends, genres, and commercial potential of a piece of music (Beer, 2017). Thus, knowledge about music is no longer obtained through qualitative interpretation, but rather through the aggregation of user behavior data on a large scale (Gillespie, 2014).

The transformation of listening experience into data marks an epistemological shift from knowing by interpretation to knowing by calculation, where the validity of knowledge is determined by quantification and statistical correlation (Beer, 2017). In this regime, music is understood through data patterns, not through artistic meaning or broader cultural context (Prey, 2016). This shift shows that the epistemology of music in the streaming era is increasingly oriented towards quantitative logic operated by platform technology systems (Gillespie, 2014).

In the digital ecosystem, algorithms not only function as technical tools, but also act as epistemic actors that determine how knowledge about music is produced, filtered, and distributed (Gillespie, 2014). Recommendation algorithms work by processing listening data to predict user preferences, while shaping the music exposure that audiences will receive

(Beer, 2017). Thus, algorithms operate as algorithmic governance mechanisms that govern the visibility and relevance of music within streaming platforms (Gillespie, 2014).

The role of metrics such as the number of streams, chart position, and user engagement levels reinforce what Beer (2017) calls the power metric, which is the ability of numbers and statistics to shape perceptions of value and truth. In this regime, the value of music is no longer determined by artistic quality or critical judgment, but rather by the numerical performance generated in the platform system (Beer, 2017). These numbers serve as epistemic indicators that are considered objective, even though they are actually generated through algorithmic design and platform interests (Gillespie, 2014).

Rating and ranking tools are the main instruments in shaping public perception of the quality and importance of music (Graham & Rodriguez, 2021). Through charts and ranking lists, music that has high data performance is positioned as "more valuable" and "more true" epistemicly than other works (Graham & Rodriguez, 2021). This process shows that the truth and legitimacy of music are not neutral, but are constructed through a technical system that prioritizes measurability and comparability (Beer, 2017).

Thus, the platform's knowledge regime creates conditions where algorithms and metrics become the primary mediators between music and the audience's understanding of its value (Gillespie, 2014). Knowledge about music is no longer generated through critical dialogue or aesthetic reflection, but through automated systems that prioritize the efficiency, predictability, and scalability of data (Beer, 2017). This marks a shift in musical epistemology towards a standardized and automated form of knowledge (Graham & Rodriguez, 2021).

In the context of streaming, the legitimacy of music value undergoes a fundamental redefinition, where the "success" of a work is measured through platform analytics such as the number of plays, chart position, and the success of entering popular playlists (Prey, 2016). These parameters serve as epistemic legitimacy mechanisms that replace traditional indicators such as physical sales or critic recognition (Beer, 2017). Thus, the value of music is no longer legitimized through human authority, but rather through data systems operated by platforms (Gillespie, 2014).

Streaming charts and curated playlists serve as new epistemic institutions that determine which works are considered relevant, popular, and valuable (Graham & Rodriguez, 2021). Through the visibility provided by both editorial and algorithmic playlists, platforms actively shape the hierarchy of music values in the digital ecosystem (Poell, Nieborg & van Dijck, 2023). This process shows that the legitimacy of music is performative, generated through data circulation and the repetition of exposure within the platform (Beer, 2017).

The epistemology of music constructed by the logic of platforms places data as the main source of truth, while obscuring the qualitative and contextual dimensions of musical works (Prey, 2016). Within this framework, knowledge of music becomes increasingly detached from deep aesthetic experiences and increasingly tied to quantitative performance indicators (Gillespie, 2014). As a result, the legitimacy of musical values is no longer discursive, but systemic and automated (Graham & Rodriguez, 2021).

The shift in music epistemology in the streaming era shows that knowledge of the value of music is now shaped by data systems and algorithms that operate within the logic of digital platforms (Prey, 2016). Listening activities are converted into epistemic data, algorithms

function as knowledge actors, and metrics become indicators of the correctness of musical values (Beer, 2017). In these conditions, music criticism, human curation, and physical sales lose their central epistemic positions, being replaced by knowledge regimes based on quantification and automation (Gillespie, 2014). This shift is an important foundation for understanding how epistemological change intertwines with ontological change and influences the repositioning of record companies in the digital music industry (Poell, Nieborg & Duffy, 2021).

Ontology–Epistemology Relations and Repositioning of Record Companies in the Platform Ecosystem

The ontological shift of music from a physical artifact to a digital-processual entity directly eliminates the historical function of record companies as major producers and distributors of physical mediums such as tapes, CDs, and vinyl (Hesmondhalgh, 2019). This loss of physical production and distribution marked a structural shift in the music industry, as control over material logistics was no longer the primary source of institutional power of labels (Morris & Powers, 2015). In the context of the music-as-data ontology, the role of record companies shifts from the manager of objects to the manager of information and data flow (Kallinikos, 2013).

Along with these ontological shifts, data-driven music epistemological changes are pushing record companies to adapt as actors involved in the production and management of knowledge about music (Prey, 2016). Labels no longer function primarily as a determinant of taste through traditional artistic curation, but rather as metadata managers, streaming performance analysts, and regulators of the visibility of works in the platform system (Poell, Nieborg & van Dijck, 2023). This function shows that record companies now operate as data intermediaries that bridge artists, platforms, and audiences through information processing (Kallinikos, 2013).

This transformation indicates a change in the institutional role of record companies from physical access custodians to knowledge managers operating within algorithmic epistemological regimes (Gillespie, 2014). Within this framework, the strategic value of labels lies in their ability to read, interpret, and utilize streaming data for the benefit of artist promotion and monetization (Beer, 2017). Thus, the ontology–epistemology relationship of music encourages the repositioning of record companies as knowledge actors in the digital music ecosystem (Poell et al., 2023).

In the streaming ecosystem, digital platforms occupy a central position as the ontological and epistemological infrastructure where music exists, processes, and interprets (van Dijck, Poell & de Waal, 2018). Platforms not only provide a means of distribution, but also regulate how music is represented as data and how the value of music is known through metrics and algorithms (Gillespie, 2014). This condition makes the platform a structural power center in the digital music industry (Poell, Nieborg & van Dijck, 2023).

The relationship between record companies and platforms is mutual but asymmetrical dependence, where both parties need each other but have an unbalanced position of power (Nieborg, Poell & Duffy, 2021). Labels need a platform for global distribution, visibility, and audience access, while platforms need a catalog of music and cultural legitimacy provided by

labels (Nieborg et al., 2021). This dependency is asymmetrical because the platform controls the data infrastructure, algorithms, and visibility rules that determine the existence of digital music (van Dijck et al., 2018).

Within the platformization framework, record companies are positioned as value-adding complementors in the platform ecosystem, but do not have full control over the system's core mechanisms (Nieborg et al., 2021). This position suggests that although labels still have a strategic role, the main ontological and epistemological power is in the hands of digital platforms (Poell et al., 2023). Thus, the ontology–epistemology relationship of music shows a shift in the locus of power from traditional industrial institutions to platform infrastructure (Gillespie, 2014).

The difference in algorithmic logic between platforms such as Spotify and TikTok creates new epistemological challenges for record companies in managing music visibility (Ta et al., 2024). Spotify operates primarily through a listening history-based recommendation system and curated playlists, while TikTok relies on virality-based audiovisual interaction and the For You Page algorithm (Ta et al., 2024). This difference suggests that knowledge of musical "success" is contextual and depends on the epistemic character of each platform (Beer, 2017).

In these conditions, record companies play the role of actors coordinating cross-platform strategies to maximize musical exposure and value (Ta et al., 2024). Labels use performance data from one platform to inform distribution and promotion strategies on another, thus serving as an epistemic link between digital ecosystems (Poell et al., 2023). This practice confirms that labels are no longer just distributors, but orchestrators of visibility in a fragmented platform space (Nieborg et al., 2021).

Platformization thus becomes a decisive factor in music industry decision-making, as label strategies must be aligned with the algorithmic logic and metrics of each platform (Ta et al., 2024). Artistic and commercial decisions are increasingly guided by cross-platform data analysis, not by curatorial intuition alone (Beer, 2017). This shows how the ontology–epistemology relationship of music directly shapes the institutional practices of record companies (Gillespie, 2014).

The streaming ecosystem is often understood as a space that democratizes access for independent musicians, as the platform allows music distribution without relying entirely on large record companies (Morris & Powers, 2015). An ontology of digital music that does not rely on a physical medium opens up opportunities for artists to be present and recognized through a platform system (Poell et al., 2023). However, this democratization operates within the confines of algorithmic epistemology that governs audience visibility and access (Gillespie, 2014).

The phenomenon of shifting authorship reflects a condition in which authority over the production and distribution of music is distributed among artists, labels, platforms, and algorithms (Nieborg et al., 2021). In this framework, algorithms and metrics play the role of non-human actors who help determine the career direction and existence of digital music (Beer, 2017). This condition creates an ambiguity of power, where the autonomy of the artist increases nominally but remains limited by the logic of the platform (van Dijck et al., 2018).

The tension between the democratization of distribution and the concentration of platform power suggests that the transformation of the music industry cannot be understood simplistic as liberation from label dominance (Nieborg et al., 2021). On the other hand, the ontological–epistemological relationship of music shows a shift in the form of power from industrial institutions to a distributed but structurally centralized technological system (Poell et al., 2023). Thus, the streaming ecosystem presents new opportunities as well as limitations for music industry actors (Gillespie, 2014).

The transformation of the music industry from physical media to streaming platforms represents a fundamental ontological change, where music is no longer understood as a material object that is owned, but rather as a stream of digital data accessed through the platform infrastructure (De Masi, 2021; Wang & Cao, 2024). In this digital ontology, the existence of music shifts from a stable artifact to a procedural entity whose existence is determined by technological systems, networks, and distribution platforms (Floridi, 2014). This change blurs the line between original work and copy, as digital replication makes music present as a bitstream that is constantly mobilized and recontextualized without losing its material quality (Koike, 2022).

In the music-as-data framework, the concept of albums and master recordings that were previously central to the ontology of traditional music loses its ontological status as the final form of the work (Kallinikos, 2013). Music now exists as a unit of data that can be analyzed, sorted, and processed by algorithmic systems, so that its existence is no longer tied to a specific medium or format (Lagroue, 2025). The ontology of digital music is thus fluid and open to constant updates through playlists, algorithmic recommendations, and platform curation practices (Gekker, 2021).

Along with these ontological shifts, music epistemology has also undergone a fundamental transformation, where knowledge of the value of music is no longer obtained through criticism, human curation, or physical sales, but rather through systematically collected listener behavior data (Prey, 2016). Datafied listening practices makes every audience interaction a source of epistemic knowledge that can be processed to predict tastes and determine the value of music (Beer, 2017). In this context, the truth and success of music are redefined as a result of the calculation of quantitative metrics, such as the number of streams, chart position, and user engagement rate (Gillespie, 2014).

Algorithms and metrics serve as the main epistemic actors that mediate between music and the public's understanding of its value (Graham & Rodriguez, 2021). Streaming charts and curated playlists operate as new epistemic institutions that give symbolic and economic legitimacy to specific musical works (Poell, Nieborg & van Dijck, 2023). Thus, the epistemology of music in the digital age is systemic and automated, as knowledge about music is generated and circulated through the logic of platforms and data (Latzer, 2022).

This integration between digital ontology and algorithmic epistemology forms a condition known as platformization, in which digital platforms become central to the production of meaning, value, and knowledge in the music industry (van Dijck, Poell & de Waal, 2018). In these conditions, music is not only distributed through platforms, but also "exists" and "known" through platforms as an ontological and epistemological infrastructure

(Poell et al., 2023). Platformization thus connects music-as-data ontologies with metrics-based epistemology in one unified digital system (Nieborg, Poell & Duffy, 2021).

The consequence of this integration is a fundamental change in the position and role of record companies in the digital music industry (Nieborg et al., 2021). Record companies no longer operate primarily as producers and distributors of physical artifacts, but rather as strategic actors who manage the knowledge, visibility, and value of music within the platform ecosystem (Morris & Powers, 2015). In the platform economy, labels serve as knowledge intermediaries that bridge artists, algorithms, and audiences through metadata management, streaming analytics, and cross-platform orchestration (Ta et al., 2024).

The relationship between labels and platforms is interdependent but asymmetrical, as platforms control the data infrastructure and algorithms that determine the existence of digital music (Nieborg et al., 2021). Nonetheless, record companies continue to play an important role in regulating the flow of cultural and economic values through cross-platform curation, promotion, and coordination strategies (Poell et al., 2023). This condition shows that power in the music industry is not lost, but shifts and is distributed in new configurations involving humans and technological systems simultaneously (Gillespie, 2014).

Conceptually, music in the digital ecosystem can be understood as a datafied cultural object, namely a cultural entity whose existence, value, and knowledge are determined by the process of datafition, algorithmization, and platformization (Latzer, 2022). The music industry, in turn, is transforming into a platform-based value production system, where knowledge and data become the primary source of economic power and sustainability (Poell et al., 2023). This synthesis emphasizes that changes in the music industry are not just a matter of technology or business, but a profound ontological and epistemological paradigm shift (De Masi, 2021).

The theoretical implications of this synthesis are significant for the study of music, digital media, and data culture, as they demonstrate the need for an analytical framework that integrates digital ontology, algorithmic epistemology, and platform political economy simultaneously (Nieborg et al., 2021). Music studies are no longer adequate if they only focus on aesthetics or industry, but must understand music as a data entity that lives in a digital knowledge system (Floridi, 2014). Thus, this study emphasizes the importance of a philosophical-media approach to understand the transformation of music and the cultural industry in the era of digital platforms (van Dijck et al., 2018).

CONCLUSION

This study concludes that the recording industry's shift from physical media to streaming platforms has ontologically transformed music from stable, proprietable material artifacts into digital-processual entities reliant on data, algorithms, and platform infrastructure, while epistemologically moving from human curation and qualitative criticism to quantitative metrics and algorithms that define musical value and legitimacy. These intertwined changes embody platformization, positioning digital platforms as central to producing meaning, knowledge, and cultural values, and repositioning record companies from primary producers and distributors of physical artifacts to strategic actors managing metadata, analytics, and visibility in a platform-dominated knowledge economy marked by

asymmetrical dependency. For future research, empirical case studies of record labels in developing markets like Indonesia could explore how these dynamics influence local adaptation strategies and equity in global platform ecosystems.

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