MODA DAO

The Genesis of Music3

A self-determined future for audio creators, fueled by the Web3 creative collaboration economy.

The MODA Music Foundation Industry Whitepaper

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December, 2021

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List of Acronyms

AI	Artificial Intelligence
API	Application Programming Interface
B2B	Business to Business
B2C	Business to Consumer
The Big 3	Universal, Warner and Sony Music Groups
BOWI	Best Open Work Identifier
CD	Compact Disc
CDN	Content Delivery Network
CISAC	International Confederation of Societies of Authors and Composers
CWR	Common Works Registration
DAO	Decentralised Autonomous Organisation
DDEX	Digital Data Exchange
DMCA	Digital Millennium Copyright Act
DSP	Digital Service Provider
GRD	Global Repertoire Database
IP	Intellectual Property
IPI	Interested Party Information
IPO	Initial Public Offering
ISNI	International Standard Name Identifier
ISRC	International Standard Recording Code
ISWC	International Standard Writers Code
MLC	Mechanical Licensing Collective
MMA	Music Modernisation Act
MRO	Mechanical Rights Organisation
NDA	Non-Disclosure Agreements
NFT	Non-Fungible Token
OOH	Out of Home
PRO	Performing Rights Organisation
UGC	User Generated Content
Web2	Participative web technology
Web3	An emerging data driven semantic web technology focused on interconnectedness
WIN	Worldwide Independent Network

Abstract

The music industry’s problems are extensive and well known, and although this document covers many of them, it would be impossible to capture every nuance. The meeting point between creativity and commerce is always contentious. Since the transition from a physical market to a digital one, the music industry has evolved from one with significant entry hurdles and physical distribution limitations to one that is increasingly democratised with rapid digital distribution and consumption behaviours. MODA DAO looks toward Web3 technology and a legacy music industry to suggest a pathway towards what we have dubbed Music3. Music3 is a set of interconnected technologies, projects, companies, approaches and ideologies designed to harness Web3 distributed technologies for creator empowerment and a deeper connection between creators and fans.

Since the music industry transitioned to digital, countless startups have attempted to 'solve the music industry’s problems' with varying degrees of success. Music technology startups initially capitalised on a darling period of investment popularity by touting a form of (perceived) business relief to a desperate and reeling music industry through the use of Web2 technology. However, the promise of a robust, democratised and revitalised music industry fell by the wayside when, sadly, most startups failed to achieve commercial viability and for those few that did bring a successful value proposition, most simply sold out to large tech or 'big music’. Nonetheless, all hope is not lost.

We now find ourselves on the cusp of a digital creative renaissance, one that has already transformed the livelihood of many savvy digital artists who have embraced the Non-Fungible Token (“NFT”). NFTs are unique and non-interchangeable units of data stored on an open digital ledger (blockchain). By tying works of arts to blockchain technology, a more equitable future for creators is possible. Certainly, blockchain technology is not in of itself a panacea for the music industry (or for any industry for that matter) and neither are NFTs. But it certainly can-and-will address a large swath of the problems creators now face while also creating a new economic paradigm. By way of example, NFT marketplace OpenSea did $3.4 billion worth of transactions in August 2021 alone, the vast majority of which (unlike traditional industry models) went back into the pockets of the creators themselves. As a consequence of only a few basic criteria for NFTs and their associated metadata, there has been an explosion of ground floor economic opportunity, initially in the context of a creator economy with such things as art, music, tickets, virtual land, memorabilia, and gaming items (1).

So what will happen with music? We see no reason why NFTs cannot transform music business practice in the same way they have with digital art. We believe there is a fork ahead and in this paper we identify three possible pathways the music industry can take. The founding partners of MODA DAO envision a global, creator-centric model that blends the best of old and new worlds whilst ditching broken systems and processes. In this new path, audiences are empowered to help their favorite creators rise within their communities and share in their creativity, conviction, and success.

Other approaches may see the old-guard of music seal their role in the music industry ecosystem by cementing old-school collection systems in blockchain-based architecture, interacting with big-tech audiences on 'GoogleBook' owned social media platforms. At the opposite end of the spectrum, would see Web3 and the Metaverse becoming the wild-west of music, a sort of 'digital street' where anything goes and nothing is protected.

We created MODA DAO to realise our vision for Music3 through a collaborative open and decentralised project dedicated to independent music makers, trusted teams, and devoted followers. MODA DAO is designed to be a rising tide, lifting all boats. We believe that the following will create a solid foundation for other creators and builders:

- A new audio-fingerprinting algorithm with a publicly accessible API
- A data-storage network with back-up, immutability and a highly available CDN
- Cross-chain NFT streaming framework designed to replace MP3s with NFTs
- A foundation, with the capability to provide creative and technical grants
- A trusted Web3 creator profile
- Multi currency liquidity pools
- Voting, staking and rewards mechanisms to encourage ongoing participation
- A simple Web3 licensing and royalty collection framework
- A decentralised publishing company for admin and sync
- NFT launchpad integrated with music distribution and the Web2 streaming world
- A Music3 Innovation Lab

This document is a music industry spotlight designed to bring MODA DAO participants up to speed with the state of the industry, the opportunities for Web3, the overall strategy and approach of MODA DAO, and a benchmark for the state of the industry in 2021. Each MODA DAO project will be accompanied by other technical documents as they near completion. This whitepaper is accompanied by a project litepaper that captures the more technical details of MODA DAO in greater depth. However, in contrast to the litepaper, this document outlines that an on-chain environment requires a number of levels of participation. Metadata are the digital 'tracks' on which creative content runs, so off-chain on-chain bridges must be created if approaching legacy content. Getting the right data from the start also plays a critical role in pure on-chain environments. Behind this is a human network of gatekeepers that will either hold on to the past, keep their options open or fully embrace the Web3/Music3 world…all at their own pace.

MODA DAO looks to be the community that backs creators. No IPO, no exit strategy, just a place to drive innovation, conversation, alternative finance, collaboration and transparency. We hope that the industry will work with MODA DAO to implement and improve upon these technologies, as we have designed them with an open mindset. We also envision a vibrant market of independent MODA DAO projects, all of which would use data from this shared platform.

We believe such a path enables music makers and their teams to create music while better steering licensing and distribution revenue away from redundant or unnecessary intermediaries. This path also offers an unparalleled degree of transparency for fans, who will be able to not only follow the careers of their favorite artists in extraordinary detail, but to also participate intimately in the same.

We present an overview of MODA DAO's approach to creating a Web3-based framework to empower independent music makers - Music3.

Introduction

The state of blockchain music in 2021 is very much like any industry in its infancy, with various projects run by fragmented teams on ‘islands on innovation’. This has been the case since the first iterations in 2016/2017 with the likes of JAAK, UJO, Musicoin, Vezt, Emanate, Choon and Audius. Five years on, some of these projects have matured and gained serious user adoption while most remain disconnected from the rest of the music industry, or lay dormant.

MODA DAO is introducing a new term; ‘Music3’. Music3 is a broad label referring to a new set of interconnected technologies, projects, companies, approaches and ideologies designed to harness Web3 distributed technologies for the purpose of creator empowerment and deeper connection between creators and fans.

MODA DAO is the first open and tokenised Web3 music project aimed at interconnectedness between Music3 projects whilst having deep integration between legacy music industry systems and the wider crypto-economy.

This whitepaper aims to do a few things. Firstly, it is an introduction to MODA DAO and our vision for Music3. More specifically, this whitepaper looks back upon a legacy industry and asks, if we had all the tools available to start over, what would this look like?

We look at the music industry across 4 layers (creators, industry, platforms and consumption) to see how value is shared, and how this might also be improved for creators. We also lay out the realities of solving the metadata divide without industry consensus, and set realistic expectations for creating off-chain on-chain bridges. This document does not suggest that any particular aspect of this will be approached by MODA DAO, it simply lays the market out for participants who, in turn, may choose to fund particular projects based on their value to the MODA DAO community. What is highlighted in this document is the value of bringing creators and consumers (of music) closer together through technology and collaboration.

The remainder of the whitepaper lays out the organisational and operational aspects of MODA DAO.

Four Layers of Music Industry Opportunity

Introduction

The music industry underwent significant change in Web2 and we believe that Web3 is another major step-change in the music industry. While music is now cheaper and easier to access than ever, the music industry as it currently stands is broken, corrupt, and highly exploitative (2). Beyond the well-known bottlenecks and middlemen are a few lesser-known difficulties, including multi-million-dollar royalty black boxes and a worldwide revenue distribution system that, in some instances, takes years to deliver money to creators (2,3). The recorded music business has resembled the payday loan industry in terms of investment and finance for independent artists - frequently at the mercy of much bigger, more resourced organisations (4). The major players get what they want, and the smaller ones carve out the space left behind; whether it's publishing and label contracts, advances, management agreements, artist services, or 3rd party rights royalties, the house always wins (4).

Music as a commercial enterprise covers a long and rich history, involving art, writing, creative labor, religions and governments, books, the printing press, sheet music, piano reels, the gramophone, radio networks, vinyl records, tapes, CD's, iTunes, streaming music and - now - blockchain-based music.

The bulk of this narrative concerns rights, including who can produce material, who commissions and funds material, who has access to material, whether it is copyrighted or not, and how much people are paid (5). Music is not always about what is in the charts or on radio and there has long been a cultural push-and-pull where on the one hand, platforms (retail, radio, digital service providers, etc.) ‘recommend’ content to consumers, while at the same time, actual consumer preferences dictate how content is valued on such platforms. The end result is a feedback-loop ecosystem where value is counterbalanced against consumers influencing platforms and vice-versa (6,7).

We look at four distinct layers that summarise the critical links in the recorded music supply chain:

1. At a **creator level** there is the writing and recording process and a determination to publicly share written and/or recorded music. This extends to anyone with a creative input that helps deliver a product to industry.

2. At an **industry level**, there is a determination to either purchase or license music from creators, and to sell (or license) it to consumers at the highest possible margin. There are, of course, always exceptions to this.

3. At a **platform level** there is a determination to encourage consumers to spend as much disposable income on music as possible via their platform. This can be via consuming advertising (radio/freemium services) or from purchases and/or subscriptions. Music platforms generate almost all recorded music industry revenue, but it is generally industry intermediaries that distribute this revenue back to creators with exceptions such as the masters component of direct-to-consumer platforms such as Bandcamp, etc.

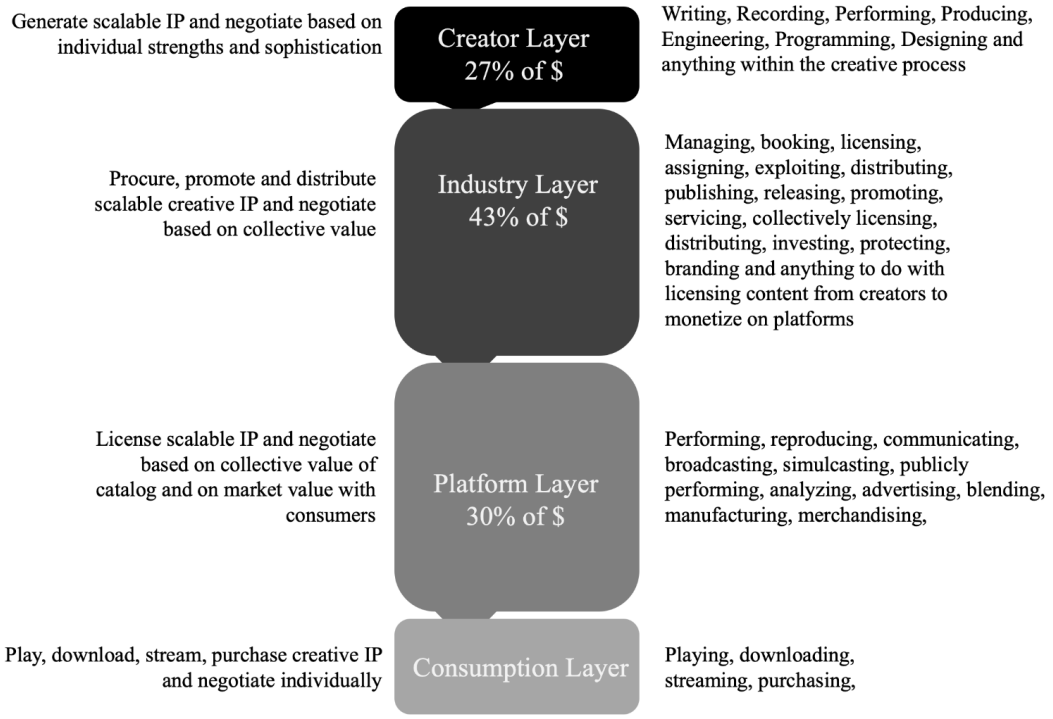
4. At a music **consumption level**, there is a determination to access music in a way that is easy, near-instant, inexpensive, and relative to the value of the experience with music. There are also consumers that actively interact with music and become part of the creator layer.

Music As a Commodity and The Intermediaries Who Benefit Therefrom

The way music is treated as a commodity makes for a highly complicated commercial environment and under traditional finance models, generally favours the larger interests (5,8). While music publishers protect and monetise the compositional aspects of recordings (and performances) - the record labels actively promote and sell recorded music to retailers, and retailers promote and sell this music to consumers (9) MODA DAO has begun to challenge the true scalability and efficiency of traditional intermediary-based structures.

The primary concern of these intended, yet arguably unnecessary, corporate finance models is to extrapolate maximum economic return on behalf of the corporate intermediary and deliver that value back to their shareholders and company executives. As a result, creator and consumer interests often become secondary or tertiary concerns (5,6). This is true all along the musical supply chain; every industry event, awards show, industry grant, long executive lunch etc. is ultimately paid for by creators and consumers alike.

The majority of revenue in this chain sits between the industry and platform layers; however, some 20-50% of all music content goes unattributed to its proper rightsholder, with the rightsholder frequently being the creator. To complicate matters, the proverbial ‘paper trail’ often disappears in such cases, making proper attribution near-impossible (4). Even in the best scenarios, it can take years for creators to see their revenue share (4). There are estimated to be billions of dollars sitting in 'blackboxes' and any absolute transparency will only result from a form of disruptive regulation (5). The United Kingdom House of Commons inquiry into Streaming Services suggests that it is not the platforms alone that are siphoning revenue away from creators (10). Accordingly, a self-published creator that owns their own masters might expect, on average, 27% of streaming revenue to reach them, with the remaining 73% shared among the industry (43%) and platform (~30%) layers (10).



This creator figure of 27% further assumes that the creator (i) owns all of their rights in their recorded music and (ii) has also composed (and controls) the underlying composition(s) alone – which is rarely the case. It does not account for unpublished artists or artists that have relinquished all or some of their ownership rights in such content in exchange for upfront remuneration or access to the market. Still further, these figures also do not account for the ways in which items like minimum guarantees for larger music organisations are leveraged to further diminish the returns for individual and independent creators (4).

The Creator Layer

The creator layer is not limited to music and accounts for a range of creative intellectual property-producing functions. Namely, by definition, it is the creator who generates innovative intellectual property ("IP") that can be scaled in some manner. A creator is not restricted to a single point in the chain, and whether they are a featured artist, writer, session musician, producer, engineer, or other creative IP practitioner, the creator may work independently, yet cohesively, within the innovative IP they document.

MODA envisions platforms becoming decentralised, creator-owned networks that are not only more efficient but offer three distinct benefits to creators: market growth, market efficiency, and market intimacy. By implementing streamlined, disruptive reform of the status quo, Music3 will be the change agent for redressing IP-creator inequities.

Music Industry Problems for Creators

Creators are often without power in the music industry value chain until they reach a high level of cultural influence (11). Current industry practice often views up-and-coming creators as seed-stage investment opportunities (12). These early investments can overwhelmingly skew in favor of industry at the expense of creators unless appropriately moderated. However, cultural influence in-of-itself does not guarantee the creator will be afforded agreements that are equitable, let alone favorable, or that creators even understand the implications of such agreements (5,13).

For example, a recoupable advance that has ambiguous, complicated, or onerous repayment terms can cause creators to have to wait years before they see any revenue beyond that initial advance. Other examples include the creator being charged extortionate rates for essential services provided by the industry partner (marketing, pr, video production, etc.) or having to sign away their rights (either in part or in total) with regard to recording, publishing, touring, endorsement, etc. In short, few real options exist when these creators are at their most vulnerable (2,2–4,14).

At the other end of the spectrum exist legacy creators i.e. those creators whose works were created and negotiated for years prior to the digital revolution. Legacy recording deals often did not anticipate (and by extension, did not allow for) digital use. However, instead of renegotiating with creators, the industry simply forced unreasonable terms upon legacy creators or simply withheld their content from digital services (7,9). Still further, intragroup considerations can present additional issues for creators such as the allocation of ownership percentages of songs and recordings among the members, as well as agreeing to and documenting a range of business practices such as entity formation, tax and business reporting obligations, payments to third-party contributors, managerial obligations, marketing, pitching, booking, etc. (15).

The MODA DAO community's underlying thesis is that members of all denominations want to grow the value of music. More than ever, Web3. has the potential to deconstruct, transform, and reconstruct the musical landscape back into a creator-centric economy which not only holds the creator-fan relationship as central to its cultural and economic existence, but increases the retained value to the creator exponentially. Key to this growth is on-chain transparency.

MODA DAO's Approach to Creator Layer Opportunities

MODA's founding board is looking at what tools are initially needed for creators to protect and promote their work. MODA DAO is a community, and the underlying thesis is that members of all denominations share a passion for the value of music. We can see that while Web3 has the potential to transform music, it also has the potential to create a perceived 'wild west' of music. And while much of the best music is written and performed 'on the streets', this should not deny the same protections that the most sophisticated enjoy.

MODA DAO draws to question why industries like gaming see a total market value of many times the music industry (Circa $140 billion USD) while the recorded music industry alone has diminished to around $20 Billion USD from an adjusted peak in the 2000s (16,17). The publishing component of recorded music adding another $10 billion USD or so annually to this total when also considered. Nonetheless, music and gaming were equally affected by 'piracy,' yet the performance of the gaming industry far outweighs the music industry, even though music is technically much 'closer' to more consumers (16,18,19).

As a community, MODA DAO looks at projects like the Music Managers Forum, Dissecting the Digital Dollar projects, WIN's (Worldwide Independent Network) The Fair Deals declarations, The Open Music Initiative (OMI), DDEX (Digital Data Exchange), and how transparency in data practices and agreement terms can democratise things like distribution and publishing administration (13,20–22). The MODA DAO founding board will spend significant time canvassing creators and creating a virtual cooperative distributed fairly between stakeholders.

The first MODA DAO Labs project which commenced in June 2021 is a fingerprinting algorithm that can determine provenance features within sound recordings. These provenance features will be able to auto generate a range of descriptive, ownership and discovery metadata. Some initial tests on things like tempo showed this can be easily automated and adapted to live changes. Genre and ownership data such as generating ISRCs (International Standard Recording Code) and ISWCs (International Standard Works Code) are the obvious next steps. Although ISWCs require membership and affiliation with CISAC (International Confederation of Societies of Authors and Composers) to generate and ISRCs remain plagued by duplication and accuracy issues. Initiatives like Quansic's BOWI (Best Open Work Identifier) will also need to be incorporated, and these would then be assigned to both ISNIs (International Standard Name Identifier) and/or IPIs (Interested Party Information).

Using voice tools to simplify the metadata and associated registration processes is the only pathway we see to creating the most efficient and equitable music distribution and global publishing framework possible. MODA DAO approaches these technicalities agnostic to the past and look at what will work best for the future.

A large part of the initiating phases will involve unpacking how administrative labor can be improved, automated, and scaled. The MODA DAO community will offer a completely transparent range of deal terms, sourced collectively and from the MODA DAO community, that will allow members to enter into peer-endorsed ethical agreements at a low cost, vetted and moderated by the community. MODA DAO also looks to overcome issues like storage, archiving, multi-territory licensing, user-generated content, end-user licensing, global live streaming licensing, and access to emerging markets, alongside a new world of metaverse efficiency - with creators in control.

The Industry Layer

The music industry layer is equally complex and overlaps greatly with the creator layer. Artist managers sit at or near the top of the hierarchy, and often oversee the artist's relationships with labels, publishers, PR/Media, booking agents, accountants and tax professionals, industry associations, and the full spectrum of industry engagement. Managers often serve as the key touch point between creators and the broader industry but sit somewhere between the creator and industry layers. To the points above, MODA DAO is an important project for music managers and as such, a heavy contingent of the world's leading independent music managers is involved in MODA DAO.

Industry Layer Problems for Music Creators

The music industry has long been plagued by all manner of problems and at times it is widely debated exactly what these issues are and how, where and why they persist (5,7,14). In many cases, there is such a lack of transparency in the music industry that the mere existence of the problems go unrealised by all but the most informed few; simply put, most people do not know what they cannot see (5). Within this document, we focus almost exclusively on the recorded music market but anticipate a range of initiatives related to, and interoperable with, varying verticals within the music industry including, but not limited to, the publishing and live sectors.

The Industry's Evolution From Physical to Digital and Its Impact

Traditionally, the recorded music industry relied on vast networks of physical distribution partners in the physical market, and the supply chain was largely manual and 'paper' based (5,7). This involved significant overheads and maintained both the artificial value of distribution services and the costs to creators (23,24). Available catalogue was also restricted to the physical product that was earning money, and when there was no profit, releases would simply stop being pressed (25).

In the 1980s and 90s CDs over inflated the market dramatically as they were much cheaper to produce and distribute (than vinyl and tape), but cost savings were neither passed on to creators nor consumers and remained difficult to audit (5,7,13). In the early 2000s, when Napster, Carracho, and a range of other unlicensed digital services filled the catalogue gap through a sudden onset of digital replication and distribution, the outmoded traditional music industry found itself scrambling to recover its power and control (5). When Apple stepped in to legitimise digital downloads, its iTunes store filled the void left by music industry litigation against Napster et al., alongside a lack of innovation from the industry itself, by offering a compelling product that balanced consumer and industry needs (5).

As technology continued to progress over the last decade, Spotify and its progeny led a streaming surge which only recently spurred on overall industry revenue to return to levels not seen since the CD boom of the 1990s and early 2000s (29). However, despite near-record present-day revenue growth, these streaming services

were not initially welcomed by the major labels who viewed streaming as a threat to the traditional model, and by extension, their bottom line. Ultimately, however, the codependence between the streaming services and the major labels became apparent to both and out of necessity, licensing deals were put in place. Streaming services, faced with an industry scorned by the era of illegitimate distribution channels needed to create loss leader models of grandeur scale to make any money for investors (3). Many music DSPs running at a loss for years before breaking even, if at all. Others were flipped as distressed assets and many simply disappeared.

The risk averse approach from the music industry saw deals that favored major labels dramatically, and it became common for major labels to take equity in music platforms as part of the deals required to get operational (5). In this scenario, both creator and DSP value is cannibalised. There are also significant advances that are not flowing through to artists and a range of 'non-transactional' deals that see revenue siphoned using the "whole catalogue" instead of pro rating usage of particular artists and tracks (4). Legacy recording deals didn't anticipate digital use, but instead of re-negotiating with creators, the industry simply forced unreasonable terms upon creators like a ransom (7,9). Until DDEX introduced a standardised digital delivery, update, and reporting framework a lot of the communication between entities was also manual, which further limited the scalability of digital solutions (22).

User Generated Content ("UGC") services like YouTube added additional layers of complexity to the market by leveraging holes in the DMCA (Digital Millennium Copyright Act) legislation that excuses the service from culpability (the proverbial "safe harbor") on behalf of users who upload infringing content to their platform (5). Instead, in a game of perpetual whack-a-mole, most often content creators must police these platforms themselves and issue takedown notices, to which the platform is obligated to respond. This process, however, proved to be inefficient and arduous for independent artists as infringers would simply re-upload the infringing content after takedown. To their benefit, unlike independent artists, industry players…because of their size and influence…are able to opt in and out of automated content monetisation and takedown systems specifically procured by the platform at their behest (5). Nonetheless, the problem of incessant under licensed UGC remains for all interested parties, and offers a glimpse into how the metaverse might be better served.

The biggest single problem within all of this centers around metadata (4,5,26). Metadata is literally data about data – although it is the basis of describing things and events. It is every single piece of data that joins the digital pipelines. Nothing makes sense in a digital world without it, but the current one limps on around it, and prior to the advent of the data exchange models described below, much of the data communication between entities lacked standardisation. Thus, the quality and consistency of associated data was, at best, inconsistent and, at worst, incongruent, which further limits the scalability of digital solutions (25).

Metadata, Rights and Recommendations

Recent definitions of Metadata of music have included three different tangents (10):

***Descriptive Metadata*:** Things like (featured) artist name, song title etc.

***Ownership Metadata*:** Information to identify commercial stakeholders and deal terms, including items such as: record company, writers/publisher, ISRC (International Standard Recording Code), ISWC (International Standard Writers Code) and deal terms, splits, etc.

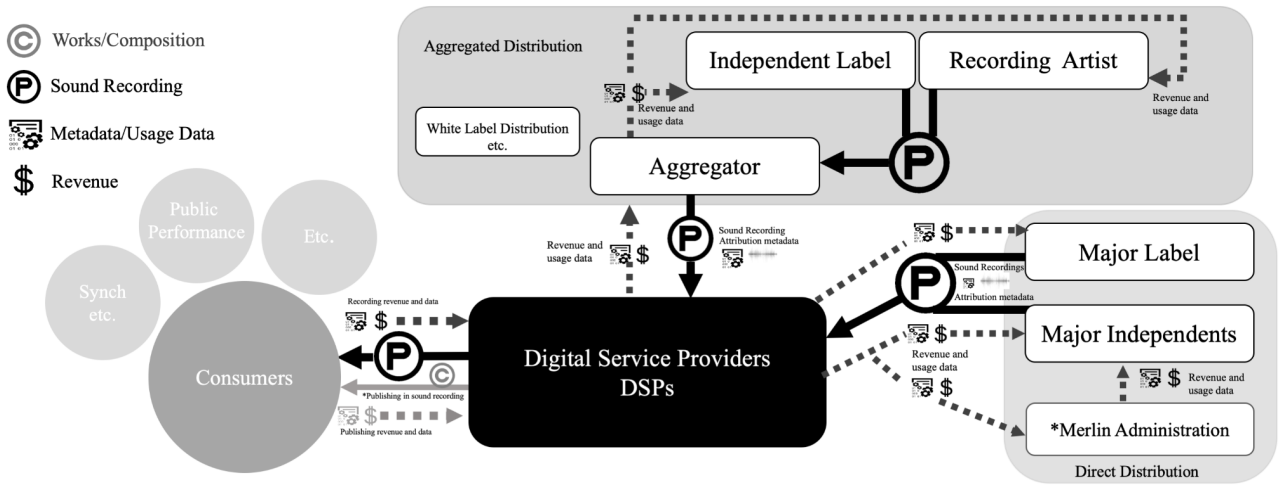
***Recommendation Metadata*:** Tags that help categorise and sort assets by items such as genre, tempo, popularity, and other externally generated fields like danceability, speech characteristics, etc.

Others break music metadata down between **Attribution Metadata** and **Usage Metadata**.

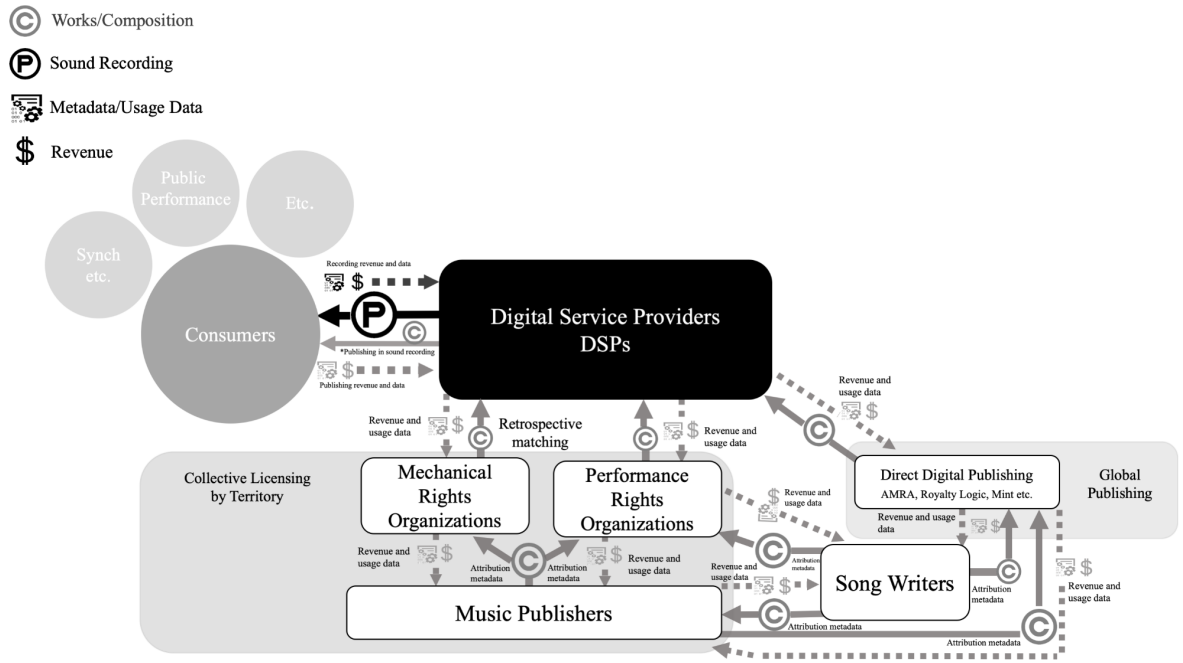
Attribution metadata is the data required to enable discovery, categorisation and ownership etc. Usage metadata is the outward use of content related back to the related attribution parties (5). Between the creator and platform layers there are a number of entities that both assist and create friction points for creators and much of this friction could potentially be resolved with a clean data ecosystem (5).

Unpacking the Rights Matrices

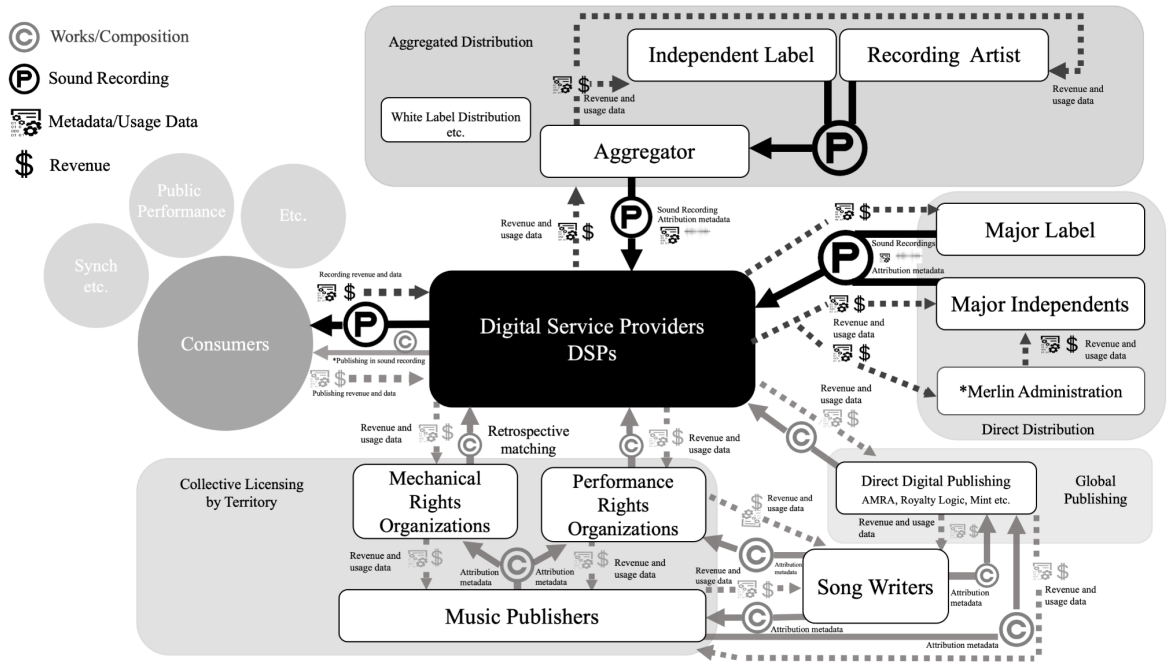
Record labels distribute recorded music assets most often via a third-party digital distributor. However, record labels are obligated to account (through licensing, whether direct or statutory) to publishers for the privilege of utilising the compositions embedded in that recorded music. Unlike the record labels, publishers typically apply their ownership data retrospectively via collective licensing organisations (4,5). Streaming platforms have since assumed the licensing liability on behalf of record labels, but in both cases, there is no authoritative database that allows this system to function efficiently (4,27).



Metadata is the critical component that could enable this whole ecosystem to function efficiently, transparently, and relatively democratically, but is often overlooked (5). In fact, some industry players intentionally benefit from the complexities related to this inefficiency. This complexity is where the greatest issues remain for the music industry (5). The publishing market for songwriters uses (somewhat siloed) databases to apply their rights to monetising songwriters shares of recorded content retrospective to market delivery.



This usually occurs by territory, and not globally. While DSPs handle this for streaming services (or outsource it to an intermediary) with physical products, this involves complex accounting that record companies had to facilitate based on (often paper-based) sales reports. This leaves a fragmented supply chain with a multitude of actors, and an overwhelming matrix of complicated rights to facilitate.



The complexity of these data exchanges (of usage and attribution metadata) creates the most overhead for the music industry and, in turn, creates unnecessary distance between creators and their audiences (13,28). Many industry gatekeepers along this supply chain only persist because old methods have been applied to new business models (7).

The Global Repertoire Database (GRD) was meant to resolve much of the friction between record companies and publishers but was abruptly abandoned by consensus (27,29). With attribution aspects able to supply the relevant parties' details and deal terms well enough to facilitate essentially frictionless transactions, publishers and their collection societies might be exposed to more efficient ways of applying technology to transactions surrounding music assets (4). If these systems were to be automated globally, it could be perceived as a threat by some intermediaries, so there needs to remain incentives for the music industry layer.

Music Reports/Royalty Logic and Mint appear to be addressing the issues of localised licensing (a PRO "Performing Rights Organisation"/MRO "Mechanical Rights Organisation" in each territory duplicating processes) for digital services by creating global licensing products. Still, broadcasting and general licensing (public performances) are much harder to administer (30,31). There remains no global solution for songwriting rights under these categories apart from collection societies, yet having collection societies in each territory exponentially duplicates processes and diminishes value to creators on a global scale (5).

Common standards such as DDEX (Digital Data Exchange) have harmonised the technical distribution elements of the music industry extensively, and reduced a great deal of process replication, but this remains a complicated process and one that is not yet wholly flawless (21,32). Common Works Registration (CWR) and CIS-NET have similarly reduced process replication between publishing organisations and their collective licensing affiliates, but there remains significant improvements needed to implement these formats to allow the cost reductions to pass through to creators (33–35).

The Changing Role of Record Labels & Publishers

From the labels' perspective, the digital distribution of music has significantly reduced the costs associated with expensive and cumbersome physical distribution networks (10,36,37). Instead, the predominant costs to record labels (and creators) have shifted towards the furnishing of artist services (38,39). Artist or creator services are generally the developing, promotion, and marketing of content and its creators to elevate its market status.

As discussed above, it is common for songwriters and recording artists to secure the services of a publisher or record label (respectively) via advances recoupable on future revenue (4,5,40). This often occurs at a stage when co-investment is required to get to mass market and creators are at their most vulnerable (5). As technology has progressed, many of these models and practices have remained relatively unchanged. For recording artists, the cost of producing, recording, engineering, and mastering recordings has been

significantly reduced in recent years with the advent of home recording equipment. Yet for those who are forced to finance these endeavours through a label or publisher, most will see those entities owning most-if-not-all of the artist's creative output via the contract the creator will inevitably have to sign for the privilege of receiving those advances (4).

Kickstarter and a range of other crowdsourcing finance options have already set a blistering pace in the alternate finance space (41), as well as distributors and publishers alike using predictive metrics to advance money on both short-term and long-term returns (42–44). Paperchain.io being one of the stand-out agnostic solutions emerging over recent years. The music industry problem is primarily one of inefficiency. With collective licensing creating unnecessary duplication in each territory and a fragmented data ecosystem for creators, platforms, and consumers, it is here that alternate models will be focused on writers and the administration of copyright (5).

MODA DAO's Approach to Music Industry Layer Opportunities

Creating superior tools at a creator level can significantly reduce friction at an industry level. With clean metadata that is easy to implement, deal terms that are global, fair, portable, and easily converted into smart contracts, the industry layers can be significantly reduced (4,14). This does not suggest that any single aspect will be completely displaced; more that, challenged by greater transparency and the right technology communities, the industry will increasingly need to prove their value to the creator market when the opposite has largely been the norm (5).

MODA DAO takes a cooperative approach and puts creators in the position of control while incentivising audiences to invest in them alongside industry and platforms. MODA DAO also looks to its partner Emanate as both a distribution platform and a music marketplace that is equally in the hands of creators and invites similar partners with complimentary or even competitive offerings (45).

While most of our work will look beyond the current music industry paradigm, transparency is an increasing demand, and dirty data and inefficient and often duplicative processes create excessive costs and barriers throughout the music supply chain (5). The innovation and tooling to support legacy practice that MODA DAO proposes will not cure any music industry failing overnight, but a clear outcome is to reduce the distance between creators and consumers as Music3 emerges. The $424 odd million dollars released by the Mechanical Licensing Collective (MLC) in early 2021 highlights just the tip of the iceberg in creator, industry, and platform inefficiency (46).

In maturity, our provenance fingerprinting technology could crawl all available content and bridge this data with other similar platforms so that eventually immutable audit trails can be enabled. Turning this to geolocated activity that surrounds music usage will be a project for the future. At the same time our community of technology will look forwards to new ways of creative empowerment.

MODA DAO sees a distribution and publishing administration world that is mainly democratic, with distribution costs further refined by the scale of usage. The more automated this can be, the more the industry side comes down to clear returns on investment for artist services. Industry thought leaders like Downtown Holdings are primarily moving this way in an off-chain capacity, divesting much of their 'owned' rights to become both a high-end media group and one that creates solutions for high volume, low-value market participants (38). Hipgnosis, who have been purchasing sizeable high-end songwriting catalogues via private investment, are in many ways creating change in current practices but leading by example at a high end (47). The Hipgnosis model creates a collective ‘high-end’ model of copyright ownership that drives an appetite for more detailed audience level data by virtue of being a public company. It also aids the development of fractional ownership, albeit from a traditional industry perspective.

Realistically, technology is coming from everywhere. The MODA DAO philosophy is to transfer the value of music back to those who earn it, and to keep measuring this value as it changes. The next section looks more closely at music platforms.

The Platform Layer

The role of music platforms has evolved dramatically over the years. Few would know that the original pitch for the telephone was to broadcast orchestras (5), and in some ways, the internet was originally designed to distribute music. MODA DAO considers platforms largely as the payment gateways for audiences, but keeps in mind that vinyl sold record players, radio sold both radios and advertising, and tapes and CDs brought us the Walkman and the portable CD player, respectively (5,7).

iTunes was created to sell Apple products as much as music, but as we move to streaming models, mobile devices have filled the 'player' void, and in many cases, platforms rely on a mix of user interface (“UI”) and catalogue to retain paying users (5). Streaming remains primarily Web2, and MODA DAO considers legacy issues only enough to build a platform that avoids an industry repeat of the file-sharing era, which ultimately hurt creators more than industry (5).

It remains challenging to understand how efficient a label or publisher might be, and chains of non-disclosure agreements (“NDAs”) hide much of the true integrity of market participants (4,10). They especially cloud the creator-audience relationship. While many music platforms have developed API connections directly accessible by artists wherein they can access superficial performance metrics, it remains a challenge to draw any rich data from these platforms, particularly to the degree such data can be aligned with royalty reports and used efficiently. Ideally, such data, if properly aggregated and accessed, could be used to geolocate audiences and growing music communities as a means to providing certainty on marketing spends and targeted live preferences. The same applies to anyone else with interest in creative assets.

Platform Layer Problems for Music Creators

While it might be easy enough for an individual artist to get their music on the leading streaming platforms through the use of ‘come-one-come-all’ digital distributors, it does not guarantee that artists will receive equitable terms for the usage of their content (4,43). Conversely, the “Big 3” music companies (Universal, Warner and Sony Music Groups) can command minimum guarantees by using their consolidated market share, which drives revenues towards them that might otherwise be distributed more fairly amongst independent and mid-tier artists (5).

Advertising space on streaming services and the 'playlisting' industry create additional significant concerns, particularly around the idea of "payola" i.e. money paid to individuals in key positions of influence in return for pushing a particular piece of music. Today, the predominant form of discovery for most retail consumers is through the use of curated playlists in which one or more key individuals source musical content from disparate artists to include in an evergreen feed of new music to that consumer. Being added to certain playlists, particularly ‘editorial’ playlists ran by the platforms themselves, can be life-changing to an artist.

However, similar to concerns about traditional AM/FM radio of years past, playlisting has become highly gate kept by key influences who, whether it is admitted or not, often take remuneration (whether in the form of actual money or other favours) to include songs on such playlists. For the average artist, they simply cannot compete with the sway or influence of the Big 3 especially given that most playlists come from the Big 3 either directly or via their owned playlist companies (48). Thus the circular conundrum persists wherein access to influence is most often achieved through association with the very same major labels who not only deploy draconian artist-record deals, but benefit significantly from the minimum guarantees that skew revenue away from direct artist-to-consumer models, as discussed earlier (5).

In terms of metadata, music platforms still rely on the text files accompanied by audio assets provided by labels and or distributors (13,21). The publishers (via collection societies) take bulk fields retrospectively and process this differently depending on territory (21,49). It is thus challenging for creators to get clear and accurate information on the use of their content enough to audit royalty statements (5). With record companies able to license at a global level and be responsible for the content they upload to music platforms, this is becoming a more streamlined global process. One of the main administrative inefficiencies between platforms and industry sits at a collection society level (4,8,14). Under the umbrella of larger international treaties and trade agreements in each region, platforms must license with collective licensing organisations in each territory for songwriting rights, instead of globally. Duplicating processes by territory creates exponential inefficiency and complicated licensing schemes make end-user licensing nigh impossible (5).

Much like streaming analytics, it should be easy to (i) calculate what a play might be worth for a public performance in various contexts and (ii) conduct an audit of the same. The recently-adopted Music Modernisation Act (MMA) not only missed the chance to fix public performance licensing in the US for writers in particular, but has emerged as a diluted balance between limiting the liability of platforms and providing transparency for creators. The MMA excludes anything other than private use, meaning, out of home licensing remains prescriptive. The publishing community in the US (bound by Federally-imposed consent decrees) operated in a fractured datasphere before this, unable to bundle rights and consolidate provenance data effectively. The implosion of the Global Repertoire Database (GRD) some years before showed how little incentive there is in the current system to work together on an authoritative global rights repertoire solution (27,50,51). We hope to work closely with the publishing community as the metaverse opens a Pandora's box of public performance, mechanical and synchronisation licensing opportunities.

Platforms pass on around 70% of revenue to rights holders, this is not really contested, but the way that 70% flows back to creators is often obscured by the non-disclosure agreements between platforms and industry (5,10). The platform-level economics were largely exposed when the contract between Spotify and Sony music was leaked publicly in 2015, and this event triggered a range of inquiries into revenue pools at a platform level (52).

In some ways, it is not that hard to create your own platform using services like DataClef or 7Digital to provide millions of tracks to any potential digital service (53,54). The latter also provides a turnkey app solution that can be used for either B2C or B2B music services. These B2B content providers offer a pre-licensed library that can be accessed by music companies to create music download and streaming services that are essentially DDEX compliant. Any playlisting and other features require some development, but a no-frills version of a music streaming platform could emerge at a relatively low cost these days. It might be that in the future, music is licensed at a device level, and music consumers can take the best aspects of design into their own personalised device-level music service.

MODA DAO is particularly interested in how a library of music such as the best-matched databases of MusicReports and MRC Data might intersect with DDEX/API servicing and smart contracts to create an on-chain off-chain bridge (21,55,56). Independents (i.e. artists and/or labels unaffiliated with the Big 3) are the largest growing section of streaming revenue, and once there is momentum, it will be hard to contain. MODA DAO is watching closely how this can all help move clean metadata on-chain (39,57,58).

MODA DAO's Approach to Music Platform Layer Opportunities

MODA DAO sees music platforms moving from a platform layer to a network layer. Some have referred to this as a contextual market (5). A contextual market assumes that administration costs, distribution, and marketing costs are more or less the same for everyone, and products compete on other factors like the meaningful consumer experience (5).

More recent streaming models have seen massive financing from the Big 3 supporting unrealistic royalty rates for those same labels while driving the independent's share thereof down. This strategy leaves independent artists with an almost fixed market share, regardless of performance (5). As markets grow, independents essentially cannibalise each other as the Big 3 have minimum guarantees on their revenue, and no mainstream platform could realistically compete without the Big 3 catalogues (5).

Platforms could also be described in the context of Digital Audio Workstations (DAWs). For most recording artists, this is essentially where the creative process is 'captured.' The closer to the moment of creation metadata can be applied, the more efficient it will be within the marketplace (5).

Applying transactional level data (master and publishing splits, revenue share for particular uses, etc.) at a DAW level will also enable more efficient collaborations (5). By way of example, as soon as you drop a 'sample' into a track, it would be licensed based on embedded licensing terms or via private blockchain layer, or both. Creators drop in a sample, agree to the automated split preordained by the sample owner, and go on their way. Smart contracts might even be able to negotiate in the future, based on a range of rates (i.e., 10-15%), and allow for more speculative uses in marketing campaigns and such (4,12,14). That is, enabling communities to own and or divest a part of everything they create value in, on their chosen terms.

For too long, the music sold the CD player, the headphones, the stereo, etc. and as machine learning develops, so does the ability to understand the pipelines that flow around devices. iTunes may have held the music industry up until streaming evolved, but it was designed to sell Apple products more than the music itself, and this symbiosis created immense value.

Creators have missed much of this pie as platforms, and the music industry is not incentivised to pass on any non-transactional fees charged to account for this value. MODA DAO is, in many ways, a platform, but not in the traditional sense. It is the hive mind of creators, industry, and audiences working in each other's interest and challenging the conventional roles of platforms and industry.

The Consumption Layer

Music consumers and music creators are the only genuinely essential elements in the music product cycle. While industry and platforms may disagree, they only have commercial interests. That is not to suggest that either industry or platforms are redundant, more that they could be working more closely on creator and consumer interests, not the other way around. While this creator-to-audience utopia is something MODA DAO hopes to realise, the role for value-adding participants like managers and labels will proliferate as long as creators need a helping hand on the ‘business side’.

Creators are also consumers. Usually, creators learn their craft through inspiration from predecessors, and it would be hard to imagine a creator never having played another creator's song at some point. DJs are meta-consumers and consume music in a curatorial way; simultaneously, they are making a form of derivative value - hence being simultaneously both creator and consumer (5,59). Curations on platforms (radio, streaming, festival booking, etc.) are also a form of creativity and consumption, and this extends deep into software development and a range of other fields (60–62). When we get to remixing, sampling, editing, mashing up, etc., the line between creator and consumer blurs further.

Consumers are also the sole source of revenue for the music industry, regardless of whether this is generated from advertising, subscriptions, or from any number of other sources such as public performance (retail venues, bars, etc.) or indirectly via synchronisation (17,63). Creators service this content via industry to platforms, but consumers ultimately pay for it (10). Platforms facilitate payment, and the industry divides it up and passes returns to creators minus their share of revenue and any deductions (10).

Investing in music is another form of consumerism (12,41). From the major music companies buying up catalogues to broaden their market share to the recent trends of major labels purchasing independent distributors for similar reasons, there is incredible investment potential in music (11). Hipgnosis is the most prevalent example, securing funding to acquire some of the world's premium songwriting catalogues then going public via IPO, but this acquisition pattern is across the board (47). This has been largely about market share for music companies; they are essentially purchasing audiences, which is often valued on an average rate of royalties over an extended period. For example, if there are $10 million in royalties a year, this is valued at between 10 and 17 times this figure as an outright purchase (depending on other factors like how long Copyright will remain on the content - which varies by region).

A savvy catalogue investor can increase value in several ways, in addition to the primarily passive nature of publishing administration. Any annual growth is amplified as the valuation literacy shifts to long-term value, so a ripple from almost anywhere can become a wave if guided correctly (10,64,65). In many ways the music tech start-up scene has resembled a revolving door of Shark Tank episodes over the last decade or so. Many try to solve issues, but most actively seek IPO and/or acquisition over longer term change. As a DAO, MODA will challenge this way of thinking.

Consumption Layer Problems for Music Creators

The music consumer journey has been a long one. The age of vinyl liberated many from radio, then tape introduced the concept of copying, and eventually mix tapes (5,9). Vinyl was repurposed and emerged out of disco, funk and early electronic music into a way of reinterpreting cultural 'trash' into something more meaningful. Hip hop mostly gave us sampling and commodifying music into unique hybrids of new and old, yet also a copyright quagmire emerged once commercial success was achieved (66,67).

The start of the digital era came with the CD. At first a luxury, it soon became the biggest cash cow the industry had ever seen. With very few of these reduced costs passed on to consumers, consumers began to seek ways to copy things as they had with tape. As home computers flourished, this saw CDs soon able to be copied, and when the MP3 came along and a networked society emerged, industry desperately clung to old models instead of embracing change. Rogue platforms and consumers changed everything themselves (5). It took a long time for this to come full circle again (68). To evade prosecution for 'piracy', consumers also changed key attribution metadata, creating enough dirty data to clog the industry for decades.

We've come a long way from the days of "Sue All the World" when audiences were more distanced than they ever have been (69). Although, in a surreal twist, Metallica (or more specifically Twitch) were caught with their copyright pants down recently which saw the overdubbing of elevator music to one of their live streams (70). Yet, we live in such an age when the tools are there to make this all work properly, but it still doesn't (5). Unfortunately, even live streaming has exposed an increasing liability on both artists and platforms in terms of licensing, diminishing what could have been a renaissance in the face of a global pandemic.

Music charts and audience measurement also form a strong part of the creator-artist relationship (5,28,71). Long gone are the days of manually filed paper reports from record stores. To be fair, record stores have also largely disappeared. In a world where machine learning and AI can do the most amazing things, creators still can't get basic geo-located data from all of the streaming services. Most provide some very top-level information via a 'For Artists' portal, but nothing that might be relied upon with any grit. Half the time the csv downloads don't even work. Simply put, as a result of this dearth of data, creators struggle to identify where their audiences are (5). There is a reasonably large amount of information available about playlists, followers, and popularity indexes via API, but not actual plays (5).

In a positive development, companies like ChartMetric and Soundcharts, have revolutionised the way music audiences are viewed, but even they work within the limitations of both public, private and/or unofficial APIs (72). Label distribution data has become quite sophisticated however, and armed with some decent royalty reports (as csv files) and a fumbling knowledge of data analytics software like Tableau there remains a lot one can do to understand how creative works and recordings are consumed.

The true music lover today has a myriad of options for music collection, but each of them are temporary, threatened or burdensome in some way. Perhaps a selection of well-worn vinyl records, or some unopened ones purely for collection. A stand of CDs which cannot be parted with for purely sentimental reasons, an iPod or hard-drive full of MP3s that is still being added to via Bandcamp. Finally, a curated playlist of songs and moods on Spotify or Apple music that can only be played while online, apart from a few cached selections that quickly take up space on the smartphone. Even those are at the mercy of the platform itself, geographic deals behind each song and of course the ability to continue servicing a subscription fee.

For their decades of service to the music industry, which of these collections would live on after the music lover themselves expires? Which could be passed on to the next generation or used as collateral for some form of finance?

Of all these themes, the largest issue between creators and consumers is one of distance. Creators want to understand their audiences, and audiences want to feel closer to the creators that add value to their respective worlds. This comes through economic, cultural, and technological barriers, and these barriers are often created to extract value from both creators and consumers by industry and platforms. MODA DAO looks to challenge this paradigm.

MODA DAO's Approach to Consumption Layer Opportunities

MODA DAO's overall modus operandi is about creators being in control, but this most closely relates to being in control of individual consumers and audiences. If anything, we are championing ownership as something more valuable than access and suggest that access should almost be a given. A musical utopia would certainly make music free to the consumer whilst somehow compensating the artist so they can maintain a reasonable standard of living relative to their own musical success.

Consumers could also be seen more as a networked commodity, something that has been massively overlooked in the value chain. MODA DAO's solutions don't look exclusively at the consumer layer but look at how the creator and consumer layers can become closer, at times by disrupting industry and platform layers, but also by working with them. This is where we see the role of NFTs initially replacing traditional sales-based revenue, until there are both short (collectable NFTs) and long tail (streaming from provenance NFTs) markets working in harmony. From there, fractional ownership and any number of incentive schemes can be operationalised, provided that the securitisation aspects of the same will be worked through in time.

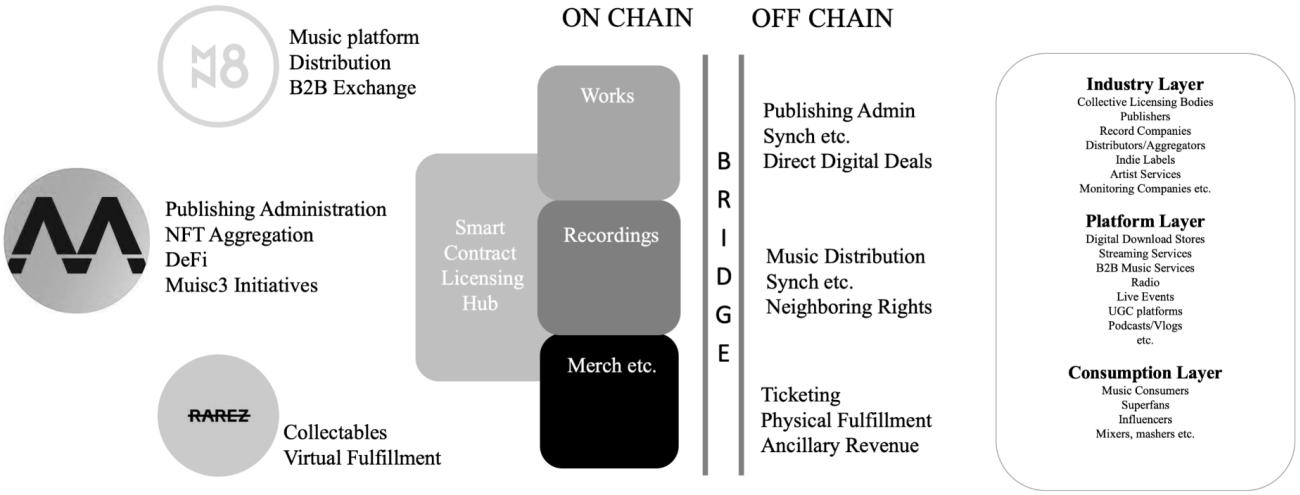
With much of this in mind, MODA DAO has launched the world's first NFT Music Aggregator to enable users to stream NFT audio files from any supported NFT platform and chain with a simple layer of usability that brings a unified listening experience to NFT-based music. In addition to enabling users to listen to NFT files without requiring ownership transfers across multiple platforms, the aggregator will include integrations allowing musicians and creatives to upload their music to IPFS and allow direct streaming to other users.

In this new Music3 paradigm, access to music for personal listening provides utility, while NFT-based ownership is a means of collecting/investing in the art form.

And we're just getting started.

An On-chain/Off-chain Debate for the Four Music Industry Layers

MODA DAO looks at two very different worlds. The world of today, limited by licensing inefficiency and controlled by industry and music platforms; and the Music3 world wherein creators are more self-determined, consumers are more empowered, and industry and platforms still play many of their traditional roles, just more equitably.



Perhaps the greatest challenge in bridging off-chain and on-chain worlds is one of metadata. The solution to this (or any combination of) comes in creating tools that make this process seamless and rewarding. This is no easy task. While new members will be able to access a range of tools within MODA DAO, catalogue level data cleansing will also help deploy a range of enterprise solutions over time. MODA DAO will continue to participate in more traditional off-chain practice in addition to pushing boundaries on-chain. Music3 still risks becoming an arm of traditional business, or co-opted, which would be a wasted opportunity for creators.

MODA DAO is still in its foundational stages and our technical lightpaper explains much of this structure in detail: Lightpaper

In contrast to the lightpaper this document focuses on the industry facing issues that MODA DAO looks to unpack. This document outlines that an on-chain environment requires a number of levels of participation. Metadata are the digital ‘tracks' on which creative content runs, so off-chain on-chain bridges must be created if approaching legacy content. Getting the right data from the start also plays a critical role in pure on-chain environments. Behind this is a human network of gatekeepers that will either hold on to the past, keep their options open or fully embrace the Web3/Music3 world. All at their own pace. MODA DAO looks to fill these gaps and be the community that backs creators. No IPO, no exit strategy, just a place to drive innovation, conversation, alternative finance, collaboration and transparency.

Today and the Future

Today

Today is a world where independent artists are the highest growing revenue demographic, but remain fragmented and mostly negotiate alone. There is heightened investment appetite to acquire and consolidate large catalogues of music. The big three music companies have either moved toward or have listed themselves publicly, and still dominate the marketplace with both recording and publishing sides to each respective business. MODA DAO questions if the move towards public listing is a clear signal that music has reached the top of a market cycle.

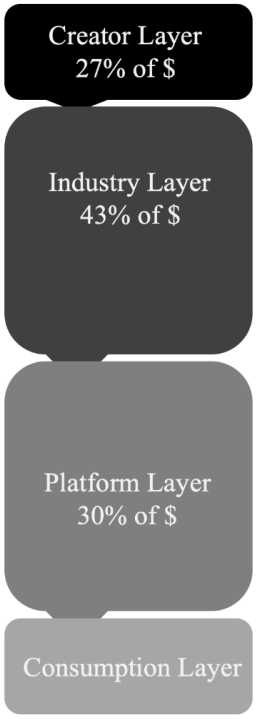
Merlin (and its DDEX compliant partners) have largely changed the independent label licensing landscape through a super clean and flexible licensing dataspace. Metadata proves acceptable at a label level more broadly but remains highly inefficient at a creator/performer level. Publishing is rarely incorporated accurately, and at times, purposefully so by those who stand to benefit from the same. A few savvy music start-ups have sucked most of the investment out of the metadata market, and despite several ‘game changing’ technologies emerging, none have yet made a significant dent. Music platforms can only really operate at extreme scale and have only just started making returns to investors. DSPs still underserve many emerging nations and dated licensing frameworks have created a wicked web of complexity. Current investment remains about quick flips and public offerings. However, there is space for alternative options, especially micro investments at scale.

Music3

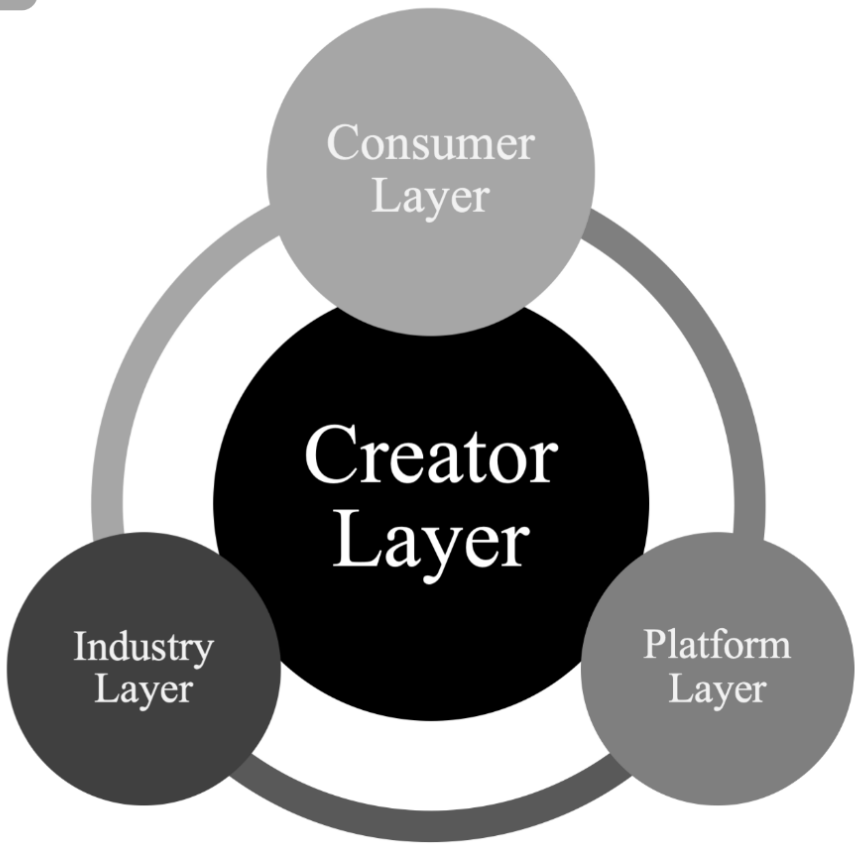
The future is Music3. In Music3, recording and releasing content is both easier and of a better quality than ever before. Music distribution and publishing administration is instant, global and linked on-chain to an evolving world of attribution and usage metadata that is immutable and distributed. Fans can invest in careers, and creators can pick and choose investment opportunities based on almost any factor they choose. Audit trails exist to the furthest reaches of archiving but may often not be needed as greater levels of trust are defined.

Fans, especially superfans, play integral roles in creator communities and this economy has been gamified, upshifting creator and fan value dramatically. In this world, you can make a stable and regular income without having to be a superstar, maybe even just as a tastemaker, curator or collector. The biggest change from revolutionising the music data and licensing ecosystems is that community value will be able to be measured but not bought in the same ways it used to be.

Today



Music3



Summary

Over the course of four parts we have broken the recorded music industry narrative into four distinct layers.

At a creator level we have looked at a range of challenges. Industry power dynamics, the transfer of creator authority, balanced deal terms, advances and finance, copyright, the complexity of business administration and the pathway to audiences are all areas of critical concern. We then propose a community-based approach to creator empowerment. Our initial work will focus on projects from MODA DAOs Music3 Innovation Labs related to upstream metadata and provenance tool kits. We layer this with an open information and education strategy to draw communities into more collaborative environments where they can still participate in traditional markets as they make on-chain transitions. The automation and scaling of traditional business administration functions is then framed as inevitable at a creator level.

At an industry level, the sheer volume of issues can be overwhelming. Web2 efficiency never really reached creators in terms of revenue, and a risk averse licensing approach borne from the Web2 consumer rebellion still dictates the economics of music platforms. User generated content, end user liability, and provenance remaining critically woven amongst this narrative in terms of both opportunity and complexity. A critical metadata divide, a legal framework that simply cannot keep up with technological advances, and a general apathy still hinder any kind of data evolution at an industry level. But there are also signs of hope.

With the right communities, co-operations and collaboration, we can avoid a repeat of Music2 and look at the future with two lenses; one learning from traditional industry, and the other focused on Music3. This will start with greater transparency across the supply chain, even if as a by-product of traditional investment strategies like Hipgnosis and the public listing of rights, and SongSplits with fractional licensing. We also suggest a strategy that is agile and experimental, with an initial focus on provenance tools at a creator level, and allowing creators access to per-play geolocated data on their audiences as an initial bridge into more contextual creative and economic relationships. We also look towards standardised reporting formats to enhance the quality of data, while offsetting investment costs as a means to creating additional efficiencies. A democratised music distribution and publishing world is emerging, and as the status quo changes, a chance for creators to own a piece of the marketplace has arrived.

At a platform level, we look back at the mistakes made when Web2 arrived and how the emergence of alternate, legally-dubious-but-consumer-demanded platforms forced industry to open up to new models. As a result, legitimate platforms then emerged as trusted and secure payment gateways while ownership began its migration to streaming from the download era. Within this, industry models largely absorbed any digital efficiencies on traditional margins, and platforms required global scale to meet investment needs. At the same time, NDAs, data and the technical ability to plan sophisticated business activity still remain locked between industry and platforms, with creators rarely able to lean in.

The world of music platforms remains largely top heavy and audiences are looked at as a commodity that in many ways can still be purchased. The current publishing framework may be fit for the physical market, but as digital preeminence takes hold, global licensing solutions are emerging and will only gain further traction as data becomes more incentivised and decentralised. End-user licensing and device level transactions are on the horizon, and with a rush to IPO for many music companies, data is an ever-increasing commodity. MODA DAO sees that the higher up the data pipeline tools can be created, the easier it will be for creators to participate at all levels of industry and become their own platforms, driven by their communities.

At the consumption layer, we have looked at creators, consumers and the evolving future of the middle person. We also contrast the creator-audience utopia with the realities of business administration. To unlock the deepest levels of collaboration we also look at creators as consumers and where Music3 might lead the ever-permeable line between creation and consumption. Consumers are also the sole source of revenue for industry and many territories remain underserved, with live streaming exposing the inefficiencies of (i) the industry-to-platform data relationships and (ii) most recently, territorial arrangements. In many cases, live streams are synchronisations that sit outside of these networks, but the data remains siloed by territory and organisation. Music companies and music-tech have largely evolved into a shark tank type environment, and while in some ways this has displaced creators for profit, it has also created the appetite for transparency that will ultimately drive Music3. There remain significant economic, cultural and technological barriers between creators and audiences, and the time is now for creators to join together and stand up for themselves and their communities.

What has emerged from these layers is an opportunity to start anew. This doesn't mean that change will come overnight; more that, on the road to maximal economic efficiency there lies a middle-ground between the broken industry of now and creator-audience utopia to tomorrow. MODA DAO was founded to help facilitate this transition whilst forging a future existence for creators through a DAO framework wherein they can not only own and share their own content on their own terms, but own a piece of the industry and platform layers that joins them with their audiences.

Music3: The Year is 2030

Imagine what the music business will look like in the near future. A musician logs into their digital wallet, which displays all of their songs and performances within a user-friendly interface. Creators can access a suite of open-source tools and collections of other creative material if they have the appropriate permissions set. The world's archive of creative works is here, stored in a secure and decentralised system, a record tracking the artistic progress of the entirety of human history.

Creators rarely use publishers or record labels but participate in automatic rate auctions with competing licensing hubs, with a multitude of other digital assets. Creators can pick and choose which additional services they wish to participate in, and these services are now based entirely on measurable performance and community engagement.

Collaboration is mostly automated, with particular use scenarios being handled by algorithms that are customised to meet the needs of most users. This ecosystem is contained within a smart contract gateway that minimises both usage and revenue loss. Music pricing varies depending on the circumstance in which it is traded and deployed. Performance and mechanical licensing for both masters and publishing is bundled into each respective contract and pays out instantly. Fingerprinting, speech analysis, and frequency analysis tools can detect each distinct stem within a recording, and each writer can license their own portion through their preferred marketplace.

Monitoring technologies can also pick up samples, slices, parts, beats, and easily detect originality. Music cannot be shared publicly unless minimum viable data standards have been met, but this process is mostly automated at a DAW level by AI, voice prints and even down to particular instruments by audio frequency. Samples can be licensed at the very point of (re)creation, and terms agreed upon automatically and prior to any master recording being exported to the network. In this world, choice is everything.

Every aspect of a performance/recording can be analyzed almost anywhere within the marketplace, by, for and through every writer, musician, instrument, layer, microphone, session musician, time, season, etc. Through creators' unique ID's, everything in the metadata universe may be planned out and linked back to their wallets. Importantly, this ownership can readily be communicated with the whole supply chain down to the followers that generate communities.

Music is played on devices that detect the smallest of nuances in their owner’s usage. The usage transactions occur at a device level and price via a licensing hub. The licensing hub bases prices on a range of elements, including whether the use is private, in public, or commercial. Every aspect of commercial and public spaces is monitored, from foot traffic, expenditure, demographics, movement, and behaviour.

In this world, communities have taken over the role of capital in terms of creative assets and have invested in creators that add the most value to their experiences. Music recommendations have advanced to the point where most media targets individual or group preferences and provides content dynamically. Payments for these services are made within seconds, and with immutable records underlying every transaction, any abuse of trust is well-nigh impossible.

Most transactions are reversible within a ‘loopable’ period, and human/community judged decisions can instantly recover any disputed amounts and right any wrongs. The immutable nature of this system also inhibits disingenuous behaviour.

Finally, creators now have complete control of the music industry's ecosystem, including their rights and how consumers can interact with their content. Blockchain has allowed creators to take full control of their intellectual property rights, payments, and the management thereof. The community is now able to add value in a variety of other ways beyond owning creative assets, such as through curation, promotion, distribution, and by even adding comments or annotations tagged with time-stamped transactions on smart contracts.

Creative humanity remains, but the tools and infrastructure have changed.

Welcome to Music3.

The MODA Foundation

MODA DAO is being launched by the newly formed MODA Foundation. While the entity is Australian-based, the MODA Foundation has a clear global approach. MODA is a public limited liability company with a non-profit mandate, meaning that it does not have a traditional shareholder structure, but is also not eligible for charity donation or tax concessions. This is ideal for the formation of a DAO, as advised by Australian law firm Gilbert & Tobin who are also publicly known for their involvement with the Synthetix Foundation and its DAOs. This structure allows MODA DAO to interface with a 'real world' entity, meaning our collective is a legitimate part of the music industry, but the corporate structure free of shareholders means the foundation has no other profit mandate outside of its mission. It also means the foundation can be dissolved freely when the time comes that DAOs can operate with regulatory clarity all around the world. We envision this happening within 5 years and have designed a roadmap around it.

Mission, Vision, Values

MODA DAO will accelerate mainstream adoption of Web3 technology as a means to enable musicians and their audiences, as well as other industry participants , to engage in the music economy directly. To support this, MODA DAO will increase its collaborations with other initiatives, projects and companies that share a similar worldview.

HiFi meets DeFi

MODA DAO will help create an infinitely sustainable Web3 music industry ecosystem that offers and replaces the benefits of the legacy industry, within an autonomous, fair and transparent environment. Decentralised Finance (DeFi) apps have provided possibly the best example of a traditional industry being restructured around Web3, and we have seen impressive growth and rapid development in the last 2 years.

Technology

Aside from bringing together the most forward thinking and influential group of music industry leaders for a transformative Web3 DAO, MODA is also a technology network, designed to bring the sort of autonomy, transparency, fairness and efficiency that will be required to properly monetise music in the exponential age.

Tokenomics

At a macro level, MODA DAO tokenomics are designed around the Web3 Sustainability Loop, originally designed by Ocean Protocol in September 2020.

Technical Documentation

The MODA DAO lightpaper covers the technical and operational aspects in more detail and is available here: Litepaper

Get Involved

There are three different levels to how a person can interact with MODA DAO and get involved.

At a basic level, users can register with the DAO on our website by launching our dapp here. At registration, users can connect their wallet of choice (currently Metamask, Walletconnect, Coinbase and Authereum are supported) and begin building a profile. Users can claim a username, display name, add a bio and add all of their social channels. This is the beginning of your unique fingerprint for Music3.

At an intermediary level, users can join the DAO and help to pass votes by participating in community governance. This is done with the $MODA token; it acts as your ballot paper for the democratic ecosystem of MODA DAO. Minimum DAO involvement requires 5 $MODA tokens, a relatively inexpensive way to contribute to the future of Music3.

At an advanced level, traditional music industry entities and technologists can take full advantage of all that MODA DAO has to offer. Artists can release music and NFTs through MODA DAO, publishing companies can work with MODA DAO and decentralise their service, technologists can tutor themselves on MODA DAO and vote to make changes that they believe will push MODA forward as a DAO. The scope of what people can do with MODA DAO to change the future of Web/Music3 is endless.

We encourage you to get amongst MODA DAO by visiting our Twitter, Website and Discord, all linked below!

Twitter: https://twitter.com/MODA_DAO
Website: https://www.modadao.io/
Discord: https://discord.gg/PzU6jJ7N82

Sign up with MODA DAO here: https://dapp.modadao.io/dashboard

More reading here: https://docs.modadao.io

Launch Partners

Emanate: https://emanate.live/home
Outlier Ventures: https://outlierventures.io
Mau5trap: https://mau5trap.com
SUBPAC : https://subpac.com
The Sandbox: https://www.sandbox.game/en/
720: http://seven20.com
//AYITA\\: https://www.ayita.com
Rising Agency: https://rising.agency
OneRPM: https://onerpm.com
ByeBye Plastic Foundation: https://www.byebyeplastic.life
deadmau5: https://deadmau5.com
Rarez : https://www.rarez.io
Club Media: https://www.clubmedia.io
Unified Music Group: https://unifiedmusicgroup.com
Richie Hawtin: https://www.instagram.com/richiehawtin
BLOND:ISH: https://www.instagram.com/blondish
Illangelo: https://www.instagram.com/illangelo
Graphite Management: https://www.graphitemedia.net
CREATESAFE: https://createsafe.io
Paperchain: https://paperchain.io
Electronic Music Conference: https://www.electronicmusicconference.com

MODA DAO Pioneers of Music3

Dean Wilson (SEVEN20 / MAU5TRAP), Rachel Kelly (Publishing / AMPAL), Ben Turner (Graphite / Ibiza Music Summit), Kevin Brown (Blockchain Architect @ Coinage), Daouda Leonard (CreateSafe / MediaEmpire), Joel Zimmerman (Musician - Deadmau5), Richie Hawtin (Musician / Technologist), Jaddan Comerford (Unified Music Group), Inder Phull (Founder @ Pixellynx) Sean Gardner Blockchain Music / MODA DAO Co-Founder), Jane Slingo (EMC / Music Executive), Dj Lethal Skillz (DJ / Producer / Web3) Swaré (Industry Relations), Jimi Frew (Emanate / Music Producer), Matt Brown (StepInCTO / Dolby / Audio Engineer), Carlo Illangelo (Grammy Winning Producer), Blake Cannell (Fullstack Javascript Developer), Trent Shaw (MODA DAO COO / Co-Founder), Lucas Cullen (Blockchain Developer / Consensus), Reggie Ba-Pe (Co-Founder / Club Media), Jeka Castro (Social Content Creator), Dr. Jay Mogis, Seb Mysko (Founder @ Rising Agency), BLOND:ISH (Musician / Entrepreneur), Joseph Aldulaimi (OneRPM / A&R), Chris Lake (Musician), Harvey Tadman (AYITA / Founder), Daniel Tauhore (MODA DAO Head of Growth), Manu Alzuru (Doin Gud / Founder), John Alexiou (Co-Founder / SUBPAC / STUDIOFEED).

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