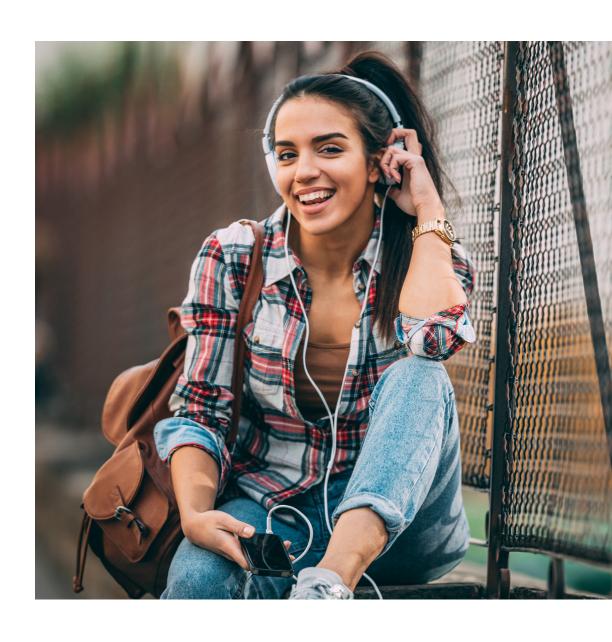
Blockchain: Recording the music industry

How Blockchain technology could save the music industry billions







The music industry is booming, but its outdated and costly music rights system needs to change

The music business has always had a tough reputation. Gonzo journalist Hunter S. Thompson described it as "...a cruel and shallow money trench, a long plastic hallway where thieves and pimps run free, and good men die like dogs."

That may not be accurate. However, where there is a negative reputation stems from the exploitation of artists. Stories abound of musicians not receiving their fair share of royalties. For example, Solomon Linda, composer of the song that became "The Lion Sleeps Tonight," was paid only 10 shillings for his work. That's about 78 pence in today's money.

In the past, underpayment was often deliberate. But then, as now, lost income was also the result of the cumbersome, byzantine system of music rights registration and supporting laws across both performance and mechanical rights. The Music Modernization Act, passed recently by the House Judiciary Committee in the US will provide significant improvements by reforming mechanical licencing laws to fully support artists and rights owners.

Outdated, slow and often inaccurate

The title to any given piece of music and performance is recorded in multiple, often-conflicting and/or incomplete records of who owns the rights to what music in what territory and for what type of use.

In Europe alone, 28 collection societies collect royalties for public performance rights and mechanical recordings in 28 different markets. This lack of transparency combined with the centralised nature of the industry has led to slower royalty payments or paid inaccurately. As a result, there continues to exist disconnect between the owners of music content, the artists themselves, and the end consumer.

This environment has a negative impact on all participants, with high cost base of administration, revenue leakage for rights owners and complex processes underpinning a convoluted ecosystem.

Artists are not the only victims of this antiquated system. Recording companies and music publishers spend significant amounts of their overhead tracking their artists' rights. Often, artists must wait for up to two years *after* their work is purchased before they get paid.

It has not gone unnoticed. There was an industry attempt, the Global Repertoire Database, which aimed to create a single, industry-standard database containing a global view of rights ownership. However, although the sentiment was borne from a desire to create a shared, authoritative means to track and pay royalties, the effort failed. The ongoing need for a better system of rights ownership information management remains to be fulfilled and arguably the benefits and need for such a solution is ever increasing.

Until recently, data was collected and maintained manually, country by country, with a disconnect between composer and performer. Now things don't have to be run this way. With some reengineering, the digital network that has turned every smartphone, tablet, and computer into a music store – and music into a business that is growing at pace, with global digital music leading the charge with revenues worth US\$14.5 billion, forecast to grow at 11.8% CAGR to US\$18.6 billion by 2021¹ – can also be used to protect the rights of artists, publishers, labels, and other copyright owners. This process is both thorough and secure.

Blockchain technology, it really could work

In the US, the Music Modernization Act will fast track mechanical licencing laws into the digital age. This will include streaming and ondemand mechanicals. In existing US law, digital service providers such as Spotify pay both performance and mechanical rights for streaming and downloads.

Along with other significant changes in the music ecosystem, on both the performance and mechanical side, how can technology play a pivotal role in making rights and payments work as fairly and effectively as possible? Blockchain is the answer. First, every Blockchain transaction is encrypted. Second, whenever a change is made, a copy of that record is sent to every node on that network, and an algorithm periodically verifies that the ledgers all contain the same series of records.

This system supports anything that needs to be independently recorded and verified as having happened, regardless of the number of parties to the transaction. And it's entirely transparent, so everyone in a network of thousands of computers worldwide can access a live version of the same ledger.

Before Blockchain, we must establish trust

In an uncertain and complex world, and in the music industry, more so than others, establishing trust is fundamental to personal and economic exchanges. Blockchain presents a unique opportunity to help solve the age old human problem of trust.

Blockchain can fundamentally change how businesses, artists and consumers alike trust and exchange value as it has the potential to enable the establishment of trust between two people, organizations or machines without trusted intermediaries, which enables value exchange. Certainly, Blockchain could completely shake up the music industry, providing an alternative to the 'trusted intermediaries' that have emerged and become established to run registries, keep records, handle transactions or negotiate terms. With trust, Blockchain could become a powerful self-publishing channel for music makers and rights owners, allowing them to bypass a complex ecosystem and giving them more control over how their songs and associated data circulate among fans. The myriad of intermediaries which conventionally have separated artists from the consumer is breaking down rapidly, hence ensuring greater protection of the rights of the owners.

Therefore rights creators and owners have the opportunity to reframe the trust conversation, and redefine its parameters through a powerful innovation like Blockchain. What is more, as well as bringing artists and consumers closer together, Blockchain has the potential to break down artificial geographical parameters restricting ownership to certain territories. This comes at a time when demand for streaming services is expected to grow significantly, both in more mature, established markets, such as the US and Europe, and rapidly emerging markets, such as Asia Pacific and China.

However, the music business also faces some unique challenges. Although growth accelerated considerably, competition is intensifying. New entrants with deep pockets, such as Amazon, are putting more emphasis on the free in freemium, subsidizing consumer costs on the backs of other business models. Moreover, similar to what we see in video content, music is very much a "short tail" business. When consumers are presented with expanded choices, they often fall back on the familiar. The top 50 songs account for almost all the streaming activity, yet the companies are paying music publishers for access to catalogues with hundreds of thousands of songs.

More than just establishing trust, assuring it

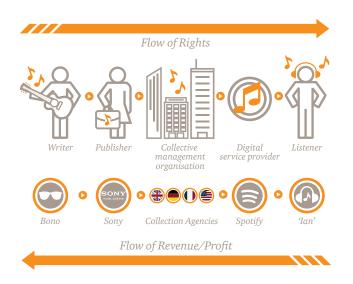
We recognise the stakes are high in completely devolving transactions. This would require a leap of faith that may be too far for the industry. Without the loss of the intrinsic benefits that Blockchain offers, we at PwC are placing trust and transparency front and centre by offering a means to monitor transactions and establishing trust by independently validating transactions.

This will allow a company to monitor, view and test transactions in near real time. So trust is not merely established, but assured.

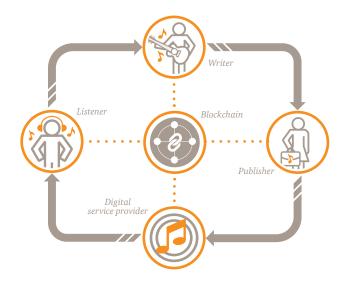
¹ PwC Global Entertainment & Media Outlook 2017-2021



Without Blockchain



With Blockchain



Everyone's a winner

Every stakeholder in the business will gain from improving the title system for music rights. Whether led by a consortium of music labels, rights organisations, or an entrepreneur, a distributed database for tracking recording and composition rights could slice millions of pounds out of the industry's overhead. This would leave more money for artists, distributors and stakeholders.

Not only would this system save money, it would also make accounting transparent. Increasing efficiency would free resources in the industry to encourage more music consumption through the application of big data analytics to A&R or additional marketing of fast-growing consumer markets.

- The global financial services industry has built a consensus around
 a standardised system that proponents say reduces the need for
 back-office paperwork and makes money laundering and fraud more
 difficult. The platform, Corda, was developed by R3, a software
 company that led an industry consortium of more than 100+ global
 financial institutions and regulators on six continents to develop an
 open-source distributed ledger system.
- B3i, the Blockchain Insurance Industry Initiative, has unveiled a
 cryptographically secure catastrophic property insurance prototype
 contract, reducing placement and settlement times from weeks
 to days.

Shipping and pharmaceuticals are also conducting similar experiments that analysts believe will soon make shipments faster and more secure.

Blockchain holds immense promise to solve a problem that humanity has wrestled with since trade began: *how do we trust each other?*

Where to begin

With any change, comes resistance. The Music Modernization Act in the US is designed to ensure progressive change is passed into law. Other changes in the music ecosystem will require an equally seismic shift, with some incumbents requiring a complete modification of their focus. People and organisation tend to be uncomfortable with unproven opportunities and the risk that comes with them. Indeed, only until tangible benefits are realised do conventions and norms shift. How do you get the immediate buy-in from the multiple parties needed to make this a success? Most disruptive innovation fails in its first attempt.

The difference in the music industry is one of speed. Speed of changing consumer habits. Speed of growth in emerging markets. Speed of growth in established markets. The speed of new market entrants and the speed once disrupters become the norm. The traditional music industry is already in the midst of colossal disruption, and the ecosystem as it currently exists must disrupt itself before it becomes outdated and irrelevant.

Time for change

The key question is: who will lead this effort in music? A consortium of major labels would cover 80% of the music market. If the independent trade group MERLIN joined, their reach would grow to 95%. Rights management organisations such as ASCAP, PRS for Music or SACEM might also take charge and are currently exploring the use of Blockchain in a joint initiative.

The threat to these groups is that a group of entrepreneurial artists, a music streaming service, or a Blockchain player from outside the industry could lead this transformation, taking advantage of Blockchain's scalable architecture to grow incrementally.

In any case, the potential economic value a Blockchain-based rights tracking system has is so vast, and the moral imperative of a more secure rights system so strong, that someone will soon step in to pursue this opportunity.

The lion might sleep tonight, but don't count on tomorrow.

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