



LBA: Element 2 (Essay)

THE ILLUSION OF BLOCKCHAIN

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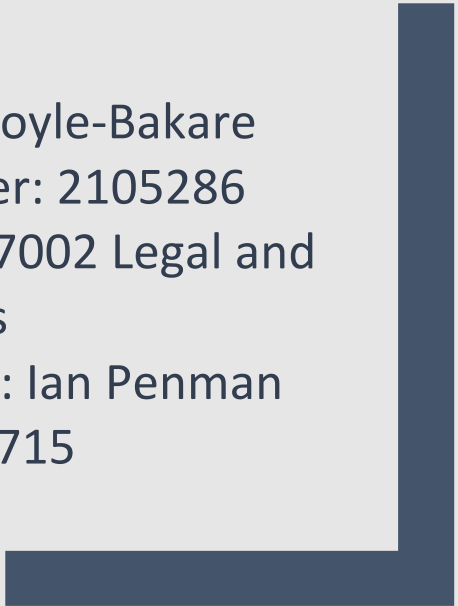


Table of Contents

1.	Introduction	2
1.1.	<i>Blockchain background</i>	2
2.	Blockchain in the music industry	4
2.1.	<i>The music industry's saving grace?</i>	4
2.2.	<i>Music industry response</i>	6
2.3.	<i>Music companies using blockchain.....</i>	7
3.	The illusion of efficacy.....	8
4.	Conclusion.....	10
5.	Reference list	11

1. Introduction

This essay will discuss the arguments for and against the use of blockchain in the music industry, focusing on Don Tapscott and Alan Tapscott's argument in favour, in contrast with David Gerrard's case against. It will begin with a contextual background introduction to blockchain, before analysing how blockchain could theoretically be applied to the industry. The essay will then take a deeper look at the application of these claims to determine whether it is all smoke and mirrors. It will conclude with the view that Gerrard's arguments against utilising blockchain in the industry are ultimately stronger.

1.1. Blockchain background

There is mystery surrounding the creator of bitcoin and the blockchain. The concept was first introduced in a paper by pseudonymous physics student Satoshi Nakamoto. They mined 1.1 million bitcoins from 2009-2010, withdrew from the Bitcoin world and cut off contact completely in 2011 (Gerard, 2017). To this day, nobody actually knows who they really were. There are fears that if this large pool of bitcoins are brought into play, its entire eco-system could destabilise.

This essay will be using Nakamoto's explanation of the following terms:

- Bitcoin: "A purely peer-to-peer version of electronic cash would allow online payments to be sent directly from one party to another without going through a financial institution" (Nakamoto, 2008).
- Blockchain: "The network timestamps transactions by hashing them into an ongoing chain of hash-based proof-of-work, forming a record that cannot be changed without redoing the proof-of-work" (Nakamoto, 2008).

Bitcoin was established as a means to have an electronic payment system based on cryptographic proof instead of trust, creating a replication of the transfer of physical money, with no middle man, in an increasingly cashless digital society. This system is powered by people known as 'miners', who donate processing power and are incentivised through a lottery for free bitcoin, with the rewards directly correlating to how much processing power they

contribute (Rethink Music, 2015). People have now realised, however, that one of the most important innovations of bitcoin has been its underlying foundation- the blockchain.

The past five years have seen industries recognising bitcoin and the blockchain's potential:

Proclaimed by some of its biggest proponents as the 'Internet 2.0', blockchain provides a novel, more efficient, and tamper-proof way to transfer value between parties, whether that be currencies, ideas, information, or votes. The bucket list of potential applications for blockchain is endless, ranging from banking and finance to food production and distribution to government management (Naughtin and Hajkowicz (2018).

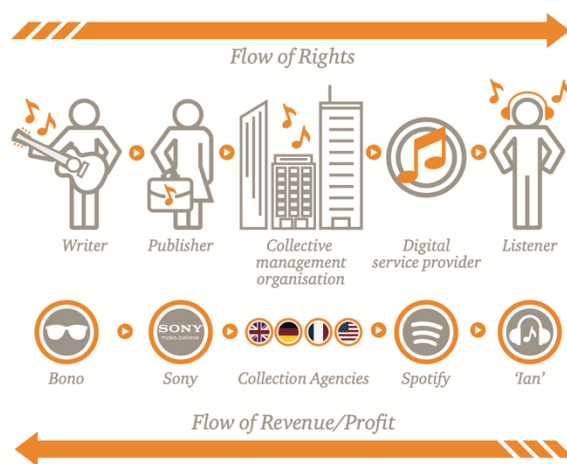
This essay intends to focus on aspects relevant to the music and industry, analysing how blockchain can mitigate some of the industry's major issues

2. Blockchain in the music industry

2.1. The music industry's saving grace?

The music industry faces an array of challenges that urgently need fixing, particularly regarding artist royalties and copyright ownership. The goal with blockchain in the music industry is to create an artist-centric model without intermediaries, as demonstrated in Figure 1 below (PWC, 2021).

Without Blockchain



With Blockchain

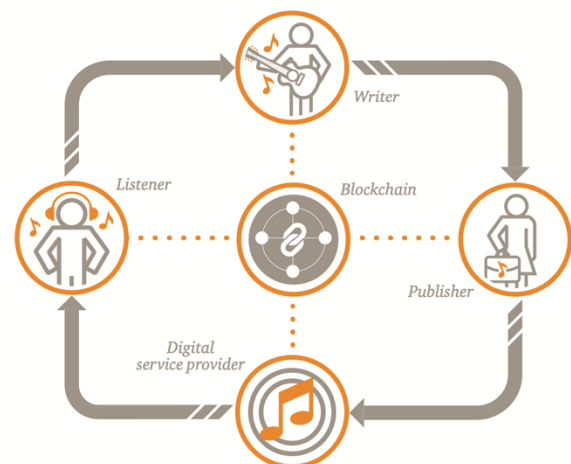


Figure 1

The relevant intellectual property rights for recorded music are two core copyrights: one for the sound recording itself linked to the performer and record label, and one for underlying composition linked to the songwriter and publisher. Further IP rights may come into play by use of trademarks and the innovation of NFT's, however, this section will primarily focus on the impact of blockchain on decreasing copyright infringement.

Control of music copyright is concentrated in a handful of companies, including the three majors (Sony, Universal, and Warner), LiveNation (for live), and Apple (for products) (Tapscott and Tapscott, 2018). This presents a litany of problems for artists, who have little to no control over their songs. There is also a near endless list of intermediaries in the supply chain- digital stores, distributors, aggregators, labels, publishers, collection societies, etc. Once payment has gone through this chain, there is little left for the artist. Further, they are only receiving these payments months or even years down the line.

Blockchain appears to solve this: “The combination of blockchain-based platforms and smart contracts... could enable artists and their collaborators to form a new music ecosystem” (Tapscott and Tapscott, 2018). This section will outline these apparent solutions, before discussing their application in practice in section 3.

Some of the most noteworthy benefits of blockchain technology for recorded music include:

1. Use as a networked database for music copyright information
2. Facilitating fast, frictionless royalty payments
3. Offering transparency through the value chain
4. Providing access to alternative sources of capital

(O’Dair, 2016).

As the modern music industry inherently involves millions of daily micro-transactions with streaming, a world where data is readily available and micro-payments can be tracked would be preferable (Rethink Music, 2015). Currently, a lack of transparency with regards to these payments leaves artists without a thorough understanding of the money they receive. By using the blockchain, the idea is that artists could receive nearly instantaneous payments (Rethink Music, 2015; O’Dair, 2016). This decentralised method of payment bypasses the middlemen involved in the current payout system, as well as the several intermediaries involved in bank transfers.

Further, large pools of royalty revenue end up in a ‘black box’ when the rightsholders cannot be accurately identified. With blockchain technology, metadata embedded into all recorded music, such as rights ownership and royalty splits, could be recorded on the blockchain via a cryptographic hash. This provides more transparency to find owners and obtain licenses, and to ensure correct redirection of funds (Rethink Music, 2015; O’Dair, 2016).

Another proposed solution is the use of smart contracts on the blockchain, to “replace a mission-critical role of music labels in this ecosystem” (Tapscott and Tapscott, 2018). Smart contracts are pieces of code that execute a transaction when a precondition occurs (Deloitte Legal, 2018). They rely on data from outside of the blockchain provided by what is known as an ‘oracle’. This could be a database or a person that provides confirmation that a precondition has been fulfilled for the transaction to be executed (Deloitte Legal, 2018).

This, if effective, would be revolutionary. Artist-controlled royalties with direct-to-fan transactions would massively increase artist's revenues and power in the industry.

2.2. Music industry response

The dawn of non-fungible tokens (NFTs) has played a large role in the industry's success in the world of blockchain. They act as digital assets/tokens such as music, videos, or a work of art, stored as digital files on the blockchain to verify ownership and prevent fraud (ArtGee (2021)). Many musicians and labels are already exploring this additional revenue opportunity.

Beyond NFTs, however, the industry seems to be divided into two camps- blockchain enthusiasts and rejectors. The major companies of the music industry are notorious for rejecting change, particularly digital advancements. As put by Gerard: "Their response to every new technology since the cassette has been to try to strangle it in the crib" (2017). Ultimately, with the massive stake that the majors have in the music industry, it would be incredibly difficult to embark on any new venture or to reach critical mass without their support: "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%" (PWC, 2021).

With these companies already tackling the advent of the DIY artist and the fall of physical distribution, their last remaining stake is in artist control and streaming. With the likes of a blockchain system, they could be considered an unnecessary intermediary to the process. Tapscott and Tapscott argue that the model "wouldn't exclude labels or digital distributors, but they would be equal rather than dominant members of the ecosystem" (2018). However, even with this, they will need an incentive to hand over their longstanding acquired power in the industry.

The question that blockchain enthusiasts need to answer is this: how can we make the majors benefit from the system? Once this is apparent, they will be far more eager to hop on a new trend. The main threat to the established pillars of the industry is that a group of entrepreneurs/artists lead the way with this technology.

If blockchain does take off, with or without support of the majors, it is important to question who gets to make the decisions. Should one company control a central system? Should it be more than one blockchain? These are not easily answered questions, but there are already some organisations paving the way in this technology that will be discussed in the next section of this essay.

2.3. Music companies using blockchain

There are many companies now fighting to be the “the new central octopus” (Gerard, 2017) of this hopeful shift to blockchain. Most companies use an Ethereum based platform- a technology facilitating digital money, global payments, and applications. The services range from blockchain powered streaming platforms like Audius, to the facilitation of NFT sales through services like OnChain Music. Non-profit organisations like The Open Music Initiative (OMI) work to enable industry platform interoperability and advocate for a simplified approach to the way music rightsholders are identified and compensated.

eMusic for Artists is a blockchain platform that streamlines music distribution, paying out the savings to the artists and service providers that support them (2021). It utilises smart contracts to track rightsholders, manage metadata, and to log sales and streams, all based on its Ethereum eMU token economy. The service operates by having the artists upload their music, document rights, and choose where fans stream or buy their songs. The company “anticipate an inevitable shift towards decentralization in the music industry. eMusic aims to be the first major music platform to convert fully to Blockchain” (eMusic, 2021).

Whether eMusic achieves this goal and brings the rest of the industry with it is hard to say. As aforementioned, it would likely need the backing of the majors to succeed, or a vast number of artists and smaller labels turning away from the current system to eMusic. Further, there are different arguments for whether it would be a good idea to have one ‘winner’. Though the system would run smoother through one central service like this, monopolies are rarely a good idea in any ecosystem and may compromise the ethics of fairness on which such companies operate.

3. The illusion of efficacy

The questions remain: is this all merely smoke and mirrors? Is blockchain capable of solving such grand problems in a deeply problematic industry? David Gerard argues that when something like this seems too good to be true, it very likely is (2017).

The high hopes that businesses have for blockchain seem illusionary at best, and false at worst: “Business Blockchain marketing claims are rarely grounded... true in some sense, but most are completely fanciful” (Gerard, 2017). Mark Meharry, CEO of MusicGlue, quotes blockchain as the “worst case of smoke and mirrors” that he has seen in an industry which “specialises in self-deception” (Gerard, 2017).

There are some glaring issues with the grandiose claims made by blockchain supporters. These can be split into minor issues, and insurmountable ones. Starting with minor issues, a key one lies in the very thing that the blockchain prides itself on- decentralisation. If it is all unregulated and uninsured, then there is no way to reverse a mistaken transaction, and there is certainly no customer service (Gerard, 2017). Further, crypto is incredibly volatile, making it untrustworthy. This could potentially be solved by attempting to use blockchain technology with ‘real’ money, though this naturally centralises the decentralised.

When engaging in a 5-day panel discussion on the topic, MTF Labs noted “that the very divisiveness seemed to indicate that trying to make a one-size-fits-all complete solution would be a project doomed to fail” (Ericson et al., 2016). They concluded that the highest potential to make such a system work would be with a modular approach, where specific problems are solved incrementally, building up an open and transparent meta-system (Ericson et al., 2016).

With regards to smart contracts, their immutability may cause serious issues:

As they are self-executing, execution cannot be prevented. If the precondition is met, then the transaction is automatically executed, even if the parties have good reasons for no longer wishing that to be the case (Deloitte Legal (2018).

The further issue of liability needs to be addressed in matters of human error; mistaken or deliberate. Just because the blockchain cannot be altered, it does not mean that it cannot be hacked. If the code of a smart contract is not drafted correctly, there is nothing preventing a hack (Coraggio, 2019). Gerard argues that these are a fundamentally bad idea, as “computer

code maps very badly to real-world legal agreements” (2017). This does not rule out smart contracts, however, most proposed solutions to these issues would remove their innovative intended nature.

Tapscott and Tapscott (2018) rely heavily on Imogen Heap’s venture, Mycellium, that claimed it could ensure: “No more payment delays, no more biannual or quarterly royalty checks, no more cryptic royalty statements. No more hand-to-mouth artists!”. However, Gerard (2017) argues that most reports do this without noting that she made a mere \$133.20 on the venture. Part of this was the fact that it was a complicated process to purchase the song. Really, the system could only succeed as a viable alternative if the process is incredibly simple. Alas, as Gerard notes, “there is nothing convenient about blockchains” (2017).

More grave problems lie in 1) metadata storage and 2) the environment. When we start to question which blockchain to use and what cryptocurrency should act as the medium of exchange, we begin to realise that none are actually up to the task. The metadata alone to encompass all of the information that enthusiasts are hoping to capture makes this impossible: “No single blockchain can possibly scale to the whole music industry. There were an estimated 35 million songs in iTunes in 2013; Spotify played a billion streams a day by mid-2015” (Gerard, 2017). Further, if you use multiple blockchains, they will need reconciliation.

Even if this were possible, the environmental impact of bitcoin and the blockchain is already catastrophic, “wasting [electricity] for the sake of decentralisation” with its power usage comparable to “the entire power consumption of Ireland” (Gerard, 2017). If people were willing to settle for an ordinary centralised database, the energy consumption is drastically lowered. However, most enthusiasts argue that decentralisation is so integral that it is worth the energy consumption. Ultimately, even if bitcoin or other cryptocurrencies could replace conventional currency in the music industry or any other industry, it would be an “ecological disaster” (Gerard, 2017).

4. Conclusion

Nick Mason from Pink Floyd sums up the debate as follows:

There clearly needs to be some objective and rational analysis to cut through the hype of a utopian vision and help us understand the reality of the current landscape, the potential for the future and what the next steps might be to bridge the gap (O'Dair, 2016).

It is the opinion of this essay that, if we are to pursue blockchain as the music industry's saving grace, it should be done with great caution and care, and most vitally, with an offset to the massive environmental threat. Further, a solution is required regarding where and how to store the metadata.

There are significant downsides that may outweigh the apparent benefits of blockchaining the music industry. Despite the success of companies like eMusic, none are even remotely at the level of causing threat to the majors or attracting a significant number of artists towards the platform. However, this does not mean that they are not important to watch.

The volatility and uncertainty of cryptocurrency alone is a sufficient reason to distrust a future on which the whole industry bases its transactions. However, the industry should capitalise on the growing popularity of NFT's and support organisations like OMI that are fighting for better solutions for artists.

Blockchain, it appears, currently poses more potential as opposed to a ready application for the music industry. It is not a magic potion, and there are grave risks in treating it as so. It may be preferable to consider employing blockchain technology incrementally as recommended by the MFT Labs, if at all.

In conclusion, this essay contends that, whilst many aspects of the music industry require significant and urgent improvement, blockchain cannot and should not be seen as an all-encompassing solution.

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