

ESSAY:

THE COMMERCIAL USES AND LEGAL IMPLICATIONS OF BLOCKCHAIN
ON THE MUSIC AND ENTERTAINMENT INDUSTRIES.

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Module Title: Legal and Business Affairs

Module Code: BMTY7002_LON

Assignment Title: Essay

Location: London Campus

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In the last 20 years, we have seen many changes in the way people get their music, but one thing that has not changed is how difficult it is for artists to make a living out of it.

Breakthroughs in technology, such as the blockchain network, have potentially offered a solution that would by-pass the middleman such as publishers and distributors who are notorious for exploiting a system that has been slow to adapt. In Europe, the royalty collection and mechanical recordings for public performance rights are split into 28 markets, which, combined with the lack of transparency, lead to inaccurate and often late payments (Outlook2017-2021, 2018).

In 2008, Satoshi Nakamoto created the first blockchain, a decentralized peer-to-peer network that did not involve a central authority to conclude the transactions. A blockchain is controlled by several authorities, rather than just one institution, with the database being shared and synchronized with multiple entities across the world (Panda, 2020).

Breaking down the word 'blockchain' means that the 'block' refers to the digital information while the 'chain' is the public database. This network collects data regarding the transactions created through the use of cryptocurrency, such as Bitcoin (Reiff, 2020).

A blockchain is a distributed ledger that is open to anyone. Once the data has been recorded inside the blockchain, it becomes complicated to change it. Each block contains data, the hash of the block, and the hash of the prior block. Depending on the type of blockchain, specific data is stored inside the block. For example, the bitcoin chain stores the details about a transaction such as a sender, a receiver and the number of coins. A block has a hash which can be compared to the fingerprint. The hash identifies a block and all its contents, and it is always unique. Once a block is created, its hash is created as well. Making a change inside the block will cause the hash to change, and so hashes are very useful when a change must be

detected. If the fingerprint of a block changes, this is no longer the same block. The third element inside a block is the hash of the previous block, and this creates a chain of blocks and it is this technique that makes this blockchain so secure (Gupta, 2017).

As an alternative to using a central entity to manage the chain, blockchains use a peer-to-peer network with everyone being allowed to join. When someone new joins the block, they get a full copy of the blockchain. The node (can you explain what a node is here?) can use this to verify that everything is still in order. After a new block is generated, it is shared with everyone on the network. Each node then verifies the block to assure that it has not been tampered with and if everything matches, each node adds this block to their own blockchain. All the nodes in this network create consensus. They consent about which blocks are valid and which are not. If any block were previously tampered with, the other nodes in the network would reject it (Laurence, 2019).

The second-generation blockchain network is Ethereum, and it was invented in 2013 by Vitalik Buterin. It is also known as DAAPS, which stands for decentralized applications. What makes it fully decentralized are the thousands of computers running it. Ethereum is the infrastructure for running dapps worldwide. It is not a currency; it is a platform. The currency used on this platform is called Ether. Ethereum allows people to connect with each other without the need for a middleman like central authorities. Ethereum writes smart contracts, which simply means that they deal with all the aspects of a contract such as payment, performance, management and terms which are then uploaded onto the blockchain network (Mearian, 2019).

As much as the internet has had a huge impact and allowed artists to distribute their music much easier than before, it has also made it difficult for artists to keep up with their expenses while doing what they love. Managers, publishers and the label all take a part of the musician's income, which delays the payment by 18 months or even more until they can actually see any income in their bank accounts (Laurence, 2019).

The music industry is known for deliberately underpaying artists. The actual music rights registration system is very complicated, and many people fail to understand it, resulting in billions of streams not being paid (Outlook2017-2021, 2018).

A strong example of an underpayment is represented by the amount paid to Linda S. for the famous song “The Lion Sleeps Tonight” or, as originally called, “Mbube,” which was bought for just 10 shillings, about £0.70. This song is valued at \$16 million. Unfortunately, Linda died in poverty in 1962 (Hutchinson, 2017).

A blockchain network could help the music industry with a fully operational music copyright database, containing the ownership of all songs and making it accessible to all the musicians. Each song could contain complete ownership details, publishing, mechanical rights, performer, global licensing rules, usage rights, lyrics/images, payment and contact information attached in the chain, which would make the process of obtaining a license for that recording far easier than it is now (O'Dair, 2016).

Today's music industry represents about 185 thousand centralised databases with little form of synchronisation, which means that if the name of a songwriter is in a database, most probably it will not synchronise with the other databases. A single database for tracking composition and recording rights could save millions of pounds, which could be distributed

to the artists and stakeholders, making accounting more transparent. This would lead to an increase in efficiency, which would lead to an increase in music consumption (Outlook2017-2021, 2018).

All data can be managed, replicated and synchronised in a decentralised system if it is approached as a standardised format, which would lead to the synchronisation of audio files, ownership rights, metadata and licensing info creating a music industry owned format. It would enable tracking, communication and monetisation of media files using a blockchain. In this case, the blockchain would act as the synchronising agent to all of those files. Each new media file would write itself and any changes permanently to the blockchain enabling the music and media industries to speak a common language (Rogers, 2019).

The lack of transparency affects the way artists get paid. Because of the non-disclosure agreements, they hide streaming deals, which put both the artist and the managers in positions where they cannot find out if the payment was accurate. Unfortunately, if a song's owner cannot be identified, the royalties owned to him/her are collected into a "black box" and shared with the top-earning artists (Werbach, 2018).

As in every business, trusting your partner is one of the most important things. It is not easy to find someone you can trust in any industry and more so in the music industry. Because of its quality, a decentralised system such as the blockchain could help create that trust between two people or organisations by eliminating the middleman. If the blockchain is set up with the right information and terms, it can become a powerful self-publishing channel that would help songwriters and owners avoid dealing with a complicated system offering them more control over their song and data. An artist who uses the blockchain network could attract

more investors for the reason that they can monitor investment outcomes and possible returns (O'Dair, 2016).

Another issue which could be solved is the speed of processing a payment. A smart contract would allow royalties to be transferred almost instantly. Since the streaming services are paying in fractions per stream, it can take several months for the payment to take place. At the moment, the universal bank accounts do not operate with frictionless payments, and so that is when the possibility of micropayment could make it possible (O'Dair, 2016).

Currently, PROs (Performing Rights Organisations) charge customers at a fixed rate, no matter the song's choice or the usage rate. The users could finally pay for the music they listen to compared to paying for an entire catalogue imposed by PROs (Monument, 2017)

With a system recording every transaction, the re-evaluation of a composition will be feasible. Many artists accept restrictive and underpaid contracts due to the lack of negotiating power or release their music through Spotify for a meagre royalty rate (Richards, 2020).

Smart contracts could make a difference by adding provisional terms to the contract, which would allow an automatic increase in the incurred price based on the level of consumption of a composition. This could make a difference for many artists as they would not be required anymore to possess or gain a deep understanding of negotiating skills. Certain people believe that musicians and consumers' negotiating power would strengthen with a high level of transparency. This would be quite unlikely as having a complete system where everyone has access to sharing the data would not necessarily mean that artists and consumers would enhance their negotiating skills (Gupta, 2017).

Despite all the advantages a blockchain network can bring, concerns are expressed towards the status of a copyright infringement and technology's actual ability to decrease piracy. As blockchain is a decentralised system, it will become next to impossible to find the person responsible for the infringement. The inability to hold the infringer responsible represents a new issue for copyright holders to deal with. Even so, with the inevitable growth of the internet and its revolving technologies, blockchain may have the power to increase the industry's revenue (Vogel, 2015).

In order to use the benefits of a blockchain network, a new intermediary platform will have to be created, which means extra costs will have to be considered. Even though this platform will bring new costs, it should increase the overall income by slowly eliminating third party members from the supply chain. However, the question is, are these third-party members really indispensable? One of the most important roles PRS (Performing Right Society) is playing in the music industry is the chasing of the infringers and dealing with the collection of royalties (Rutter, 2016). Labels are known for their ability to promote and create a superstar image for a new artist through their ability to connect them with well-established artists. Some believe that blockchain will replace PROs and labels, which is quite unlikely. Even now, artists do not need a label anymore to have their music heard, as they can use Spotify, Pandora or Apple Music and release their music independently, the same way it will work via a blockchain network. On the other hand, what an artist cannot have from either a blockchain network or Spotify or Pandora is the protective umbrella, or the brand value given by a label (Gupta, 2017). A label has more power and authority to follow up with an infringing case rather than an independent artist (Macy, et al., 2015).

Apart from labels, PROs seem to be almost indispensable due to their payment collection methods. One of the most important functions of a label or a PRS is their ability and willingness to fight piracy. Finally, even though some blockchain networks have a strong piracy proof system, the wider web is far from being a safe place, making PROs and labels valued for their ability to track beyond a blockchain network (Gupta, 2017).

In the past years, several companies using the blockchain network started their activity with the hope of proving the value of a smart contract in the music industry. Companies such as Ujo Music, Bittunes and Musicoin are some of the platforms featuring the use of blockchain technology. Ether, Bitcoin, or the newly created, Musicoin are the cryptocurrencies used to process the payments. The artists are paid through smart contracts, which are supposed to bring higher compensation. Because of their unpopularity, cryptocurrencies are not as easy to use in processing a payment, which leads to users using services like Spotify where the music is just one click away by pressing "subscribe" and the bank account is linked to a platform which offers unlimited music (Gerard, 2017). Another factor that impacts these blockchain platforms from development is the lack of a major artist on their side. Some companies like Bittunes have users in over 70 countries but with no real impact as the most successful catalogues are owned by the major labels. Out of the many blockchain music platforms, Ujo conducted an experiment in collaboration with Imogen Heap, a popular artist, to illustrate the benefits of using blockchain technology. Despite the wide attention achieved by this project, from an economic point of view, it was a failure with a revenue of just \$133.20 (Sciaky, 2019)

As it is challenging to predict how all these online platforms will evolve, PROs and labels will be unlikely to disappear. It would be foolish to believe that PROs would join a platform

which would essentially replace them. If a blockchain network becomes a giant in the music industry, then PROs, labels and blockchain networks could merge or start swapping roles (Sitonio & Nucciarelli, 2018).

This research has established that blockchain could revolutionise the music industry in the future. The need for a fairer, more transparent, faster payment and a global database system represents some of the issues that could help both artists and labels increase their income once solved. However, the absence of a fast-well-established payment method, the danger posed by piracy, and the lack of control over the data providing information about a possible infringement case make blockchain technology unwelcome at this moment in time. The benefits of blockchain technology are recognised by many people working in the music industry, but the lack of a user-friendly platform and with many issues still to be fixed, the blockchain network will still have to be developed and tested before a major artist will be willing to risk their income in attempting to use this new technology.

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