

Aston New

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Title: Explain the definition, commercial uses and legal implications of Blockchain on the music and entertainment industries

Lecturer: Ian Penman

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Introduction

The essay is to explore the impact of Blockchain in and how it can affect the intellectual property within the fast and ever-evolving economy. I will specifically be focusing on what Blockchain is, how it stands in the digital age music and entertainment industry. We will look at the advantage's and disadvantage's Blockchain has for both artist and record label and the various stakeholders within the music industry. I will draw upon findings from academia, journals, websites and books to hypothesize. Also looking at the commercial uses and legal implications surrounding blockchain. I will end, with a summary on its relevance to the music and entertainment industries.

Blockchain

'Blockchain in its simplest terms is a time-stamped series of immutable records of data that is managed by a cluster of computers not owned by a single artist' (Rosic, 2016).

Using blocks of data which are securely placed together using cryptographic. Blockchain is a distributed database that hosts data which is continuously growing. The data is stored into blocks rather than collating them as a single file. Blockchain is a way of structuring data without using a centralised authority.

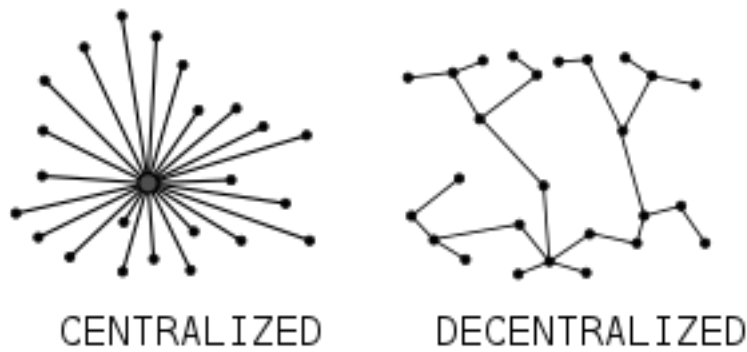
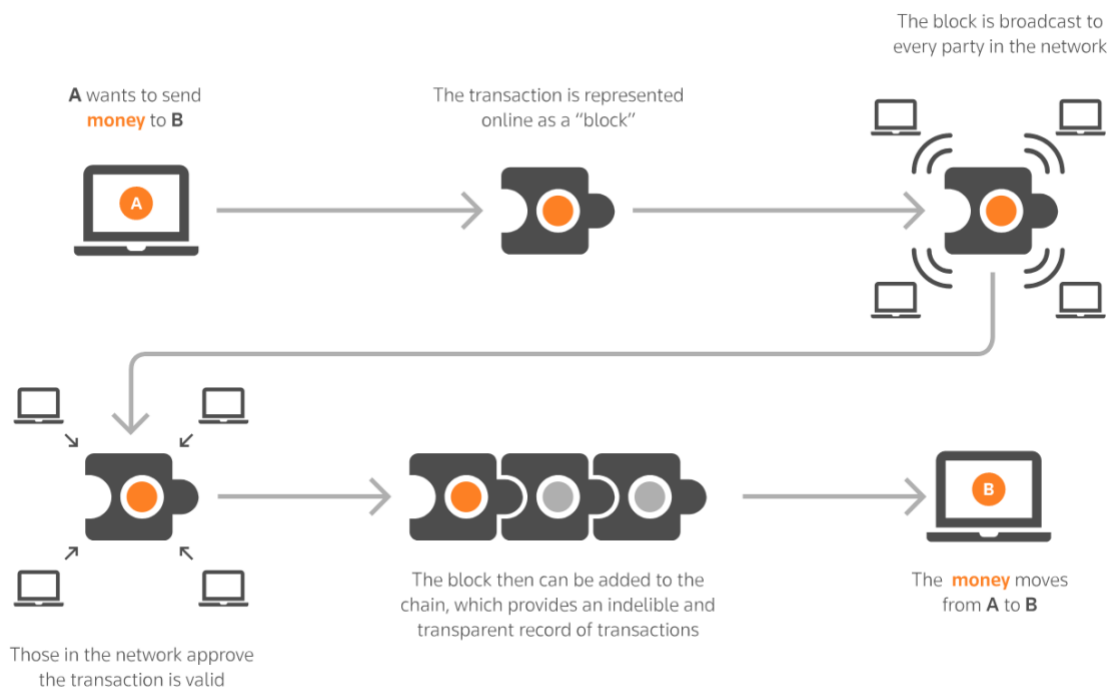


Figure 1. Centralized and decentralized systems

Source: networkcultures.org

Blockchain a relatively new technology conceptualised by Satoshi Nakomoto in 2008. Nakamoto implements the first blockchain as a public ledger for transactions made using Bitcoin (ICAW, 2019). Notably, Blockchain had been proposed by cryptographers David Chaum in 1982 and further workings by Stuart Haber and W. Scott Stornetta in 1991.



(Medium, 2018)

To understand blockchain, it is also beneficial to understand digital currency blockchain utilises cryptocurrency most notable the Bitcoin currency.

Bitcoin

Bitcoin was created in 2008 by Satoshi Nakamoto. The alias used by the person or entity who created Bitcoin (Mizrahi, 2020). Using electronic p2p to realise digital cash you need a payment network with accounts balances and transactions which is commonly used today.

Cryptocurrency

A Cryptocurrency is a digital or virtual currency which is secured by cryptography (Frankenfield, 2019). Cryptocurrency is an essential component maintaining the transactional integrity of the blockchain. A cryptocurrency is a new form of digital assets. Notable currencies include Bitcoin, Litecoin and Ethereum. Today the aggregate value of Cryptocurrencies is \$214billion (Frankenfield, 2019). With its invention part of the model is that there is a monetary value to keep the network secure.

smart contracts

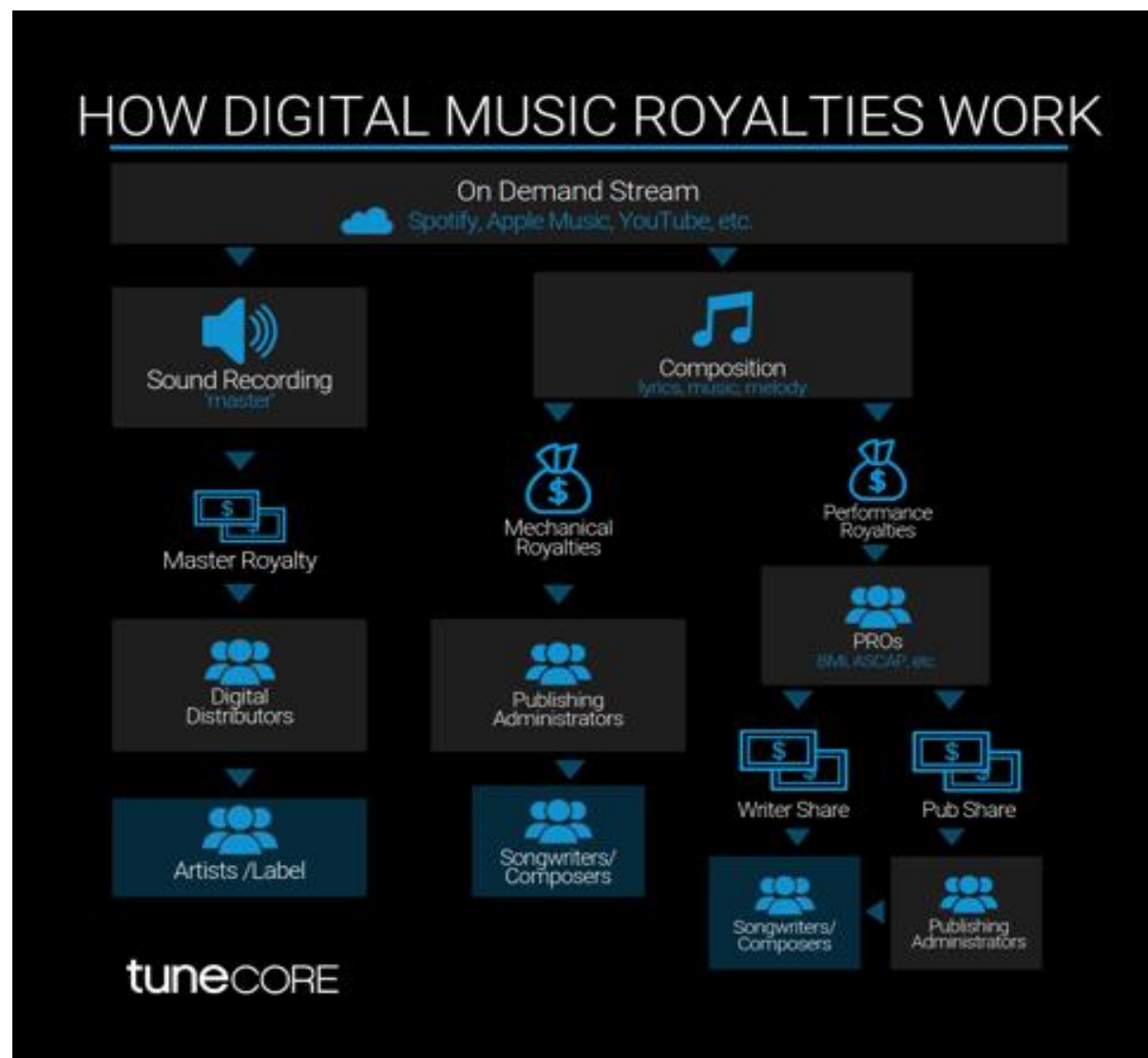
A smart contract is a computer program that runs on the blockchain network it can be used to automate movement according to the rules prescribed and conditions set by the authenticator (Mearian, 2019). The potential use for this is that it can facilitate alongside real legal contracts or even replace them. For the music industry, smart contracts can include splits in royalties between the rights holders. this ability to see revenue distributed publicly would be great for both an independent and signed artist, as allocating of royalties would be clearer to see. (Mearian, 2019)

Is blockchain safe?

Blockchain is designed to be immutable (Wang, 2020) How the chain is structured, once new information is added it is incredibly hard to change the information within the blocks. Each block has a stamp which is a string of numbers and letters. For the music industry, this could be highly useful regarding ownership copyright of the original owners or owner. The music industry has been incredibly complicated concerning who owns and has right to what songs bearing in mind possible errors could include inputting the wrong data, the similarity in names, crediting the wrong producers on a remix, overpayments from PRS and standard

human error. Per the Copyright, Designs and Patents Act (1988) using Blockchain would give greater clarity on who owns sound recordings as well as the composition rights.

The current process in which royalties are distributed is that they are collected through a music collection society which is then passed on to music publisher who then distributes to the various stakeholders.



(Dampier, 2019)

The use of Blockchain would be efficient within this process as once the song is uploaded onto the network into a block it will be given a unique code or timestamp. Instantly this protects the song from the possibility of being illegally downloaded, copied or put out illegally onto streaming services. A problem the industry faces thus far is the problem of the

'double-spend' in which one entity spends the same amount twice due to human error, this is a common occurrence. usually, this is done by a central server who keeps records of all the balances. In a decentralized network, you don't have a server in actuality every single entity within the network does the same job, every peer within the network has a full list of transactions, also the ability to check if future transactions are valid or an attempt to double spend. If the peers disagree about one single minor balance everything breaks, they need complete consensus. Satoshi proved this creating the blockchain. Before Blockchain, there wasn't a way to validate ownership of digital assets, blockchain is the first technology that enables digital ownership in a decentralized system (Rosic, 2016b).

The Music Industry

In 1999 the global recorded music industry was experiencing a period of growth that had lasted almost a quarter of a century (Wikstrom, 2014). The 'big six' major labels Warner Music, EMI, Sony, BMG, Universal Music Group controlled the distribution and promotion of recorded music. The music industry amassed \$28.9 billion industry in 1999. (Wang, 2020). As a result of these various facets, the major record labels were able to use their oligopoly position and exclusive access to means of distribution, production and marketing to control the industry reaping the majority of the benefits. (Aspray 2008, 451-453). The various key players within the music industry that could make use of blockchain include producers, artists, labels, performing rights organisations, songwriters' labels but not exclusively. In today's current market 67% of adults listen to music across streaming platforms (Aspray 2008, 451-453). The music industry generates over \$19 billion in revenue with music streaming accounting for almost half of that revenue. Traditionally each key player plays a role for an artist to release music to the consumer with that through the chain of players they all get a share of the revenue before passing it on. How blockchain is beneficial to this process is that for every song a unique code can be created. once it is uploaded onto the server the block holds all the beneficial information such as the song, melody, lyrics, producing partners, musicians, licensing information anything that is key to the implementation of the song. This positively breaks the risk of any inaccuracies with information input, reduces the risk of duplicate information being put out and shows a clear indication of how the money or royalties are being distributed between the key players. With the efficiency of blockchain, the negative implication on the music industry is that it may

make certain roles with the industry unessential due to the lack of need for manual processing. It doesn't go without saying the music is inundated with various complaints about the lack of royalties received per stream notable cases see artists complain about the inadequate amounts of royalty streams equating to money blockchain would create transparent between labels, streaming services and artists. Due to the digital age the music industry has become more and more complex every time a song is streamed online or played in the background of a TV show, for instance, the distributor must compensate the music's copyright holder – but disputes can arise over the accuracy and compensation rates of such royalties

Impact on other entertainment industries

Blockchain would prove beneficial in several markets of the entertainment industry it has the protentional to create greater measures ensuring better security as well as transparency within the entertainment markets areas that would mostly benefit the use of Blockchain.

[Yours](#)

‘Yours’ a Blockchain start-up company that uses cryptocurrency. Users varying from content creators, authors publish their work or articles with embedding content and audio with a paywall. You can put a micro-payments paywall up with your content, charge money for your content there is no subscription wall or monthly payments it is just about individual payments for pieces of content. Since transaction costs in Bitcoin Cash are extremely low and no banks or credit card companies are needed to complete a sale, authors can charge as little as a few cents.

[Ey and Microsoft](#)

‘EY’ and ‘Microsoft’ launched a blockchain solution for content rights and royalties management. Aiming to streamline the costly and time-consuming processes in entertainment rights and royalties, the solution is first being deployed within gaming with Microsoft and its game publisher partners. (Burgess, 2018)

Other notable companies using blockchain include Comcast announced in 2018 that they will use it to gain insights with umbrella companies such as NBC, Universal, Disney and channel 4 to match audience datasets without sharing to plan, target and execute and measure advertising. (Burgess, 2018)

The Market

On the current market, there are various forms of Blockchain companies all keen to assert their position in the market;

[Open Music Initiative](#)

Their aim as a company is to 'advance the way music industry administers rights and help assure all creators, performers and rights holders of music are properly compensated there are companies operation to strive for better rights for industry players, the open music initiatives are committed to finding 'new technologies which can be applied to radically simplify the way music rights owners are identified and compensated, resulting in sustainable business models for artists and entrepreneurs, and music business alike' (Open Music Initiative, n.d.). the principle is not to construct a database or a particular product but to develop unique initiatives and application programme interface to assist stakeholders in the implementation of their systems.

[Music Coin](#)

Music coin is built out of Hong Kong china the blockchain platform offers customers to stream music from their favourite independent artists. Unlike most subscription-based streaming services music coin is completely free with no ads. Music coin offers users full transparency of their site. The technology; similar to bitcoin or Ethereum. Our implementation of blockchain allows us to host music available to everyone. Transaction transparent and secure, no third parties involved so musicians get all of the revenue. Interesting with it being a free streaming service but paying musicians is unique to any streaming service they implement a model called universal based income that supports both musicians and listeners.

UBI is an economic model to ensure each contributor to the platform is fairly rewarded in proportion to their contribution. In musician's context, a UBI pool is created to secure musicians' income for PPP on the platform, at a fixed rate that is fair, uninfluenced by market forces and higher than that of any other competing streaming platforms. This will boost the influx of content from musicians as well as make streaming music free for listeners, thereby ensuring deeper penetration of music coin into the streaming market. Unlike other streaming platforms, a user on the music platforms will be able to stream songs for free without ads. Their coin, (much like Cryptocurrency, Ethereum coins) is a global currency that supports all trade surrounding music and music-related purchases. (Lyons et al., 2019a)

Ujo Music

Ujo Music is a platform that uses smart contracts as well as Cryptocurrency to compensate their artists in a pay per song model, embraced by fellow music powerhouse Imogen Heap who used the service to release music and manage payments to establish a chain of ownership. Back in 2018 Heap emphasised that is "vital to ease the flow of payments, how to ease collaboration on a business level and creative level. If you're a new musician. (Kuo, 2016)

Advantages

Blockchain has many benefits for the music industry as well as creating benefits to the digital age below are decisive points in which it can help the music entertainment industry going forward

Transparency

Blockchain technology can calculate royalties fairly and transparently so that pay-outs are based on metrics, not the whims of a record label. This transparency could extend beyond the recording studio and airwaves. Concerts are a massive portion of music revenues. (Mire, 2019)

Copyright

Copyright - Pay-per-use consumption has become feasible due to the blockchain-powered micropayments. Blockchain's ability to keep a comprehensive record of its data could allow for more accurate tracking of when and how copyrighted content is consumed. (Moy, 2020)

Record-keeping

Blockchain is an important technology for records management professionals to understand because it has broad implications for securing and authenticating intellectual property at a lower cost and higher efficiency.

Blockchain, with its shared ledger approach, can help to improve the media supply chain and decrease copyright infringements by adding transparency, security and control. As an example, it may decrease copyright infringements in music streaming where publishers and songwriters are regularly accusing music streaming providers—such as Spotify, Napster and Pandora—of not paying all they are entitled to, missing as much as 25 per cent of streaming royalties. Besides, blockchain can counter ad fraud techniques, such as bot networks and domain spoofing. Blockchain has the potential to save the music industry billions by revolutionising the rights and royalties process, ensuring artists, writers, publishers and everyone in the music industry value chain is paid appropriately. Blockchain technology gives power back to the artists (Andrews, 2018) rather than having the label deemed as a superiority it is a solution which can create a direct bridge between the artist and consumer with blockchain being the central management. (Andrews, 2018)

Disadvantages

The common perception is that blockchain will replace actual humans, within the music industry it has been emphasised that it could phase out the role of a publisher. It can be argued that although the technology can work at such an efficient rate still needs to be overseen, approved and authenticated by a human. To say that there is still the need for highly accuracy when inputting data and to solely rely on technology leaves could still have possible implications.

From the extent of my research looking at the market a concern of which would be that various companies seem to be using blockchain to effectively 'change' the music industry

landscape and bring it to speed with tech world with multiple Blockchain platforms in the market, it still being relatively new I feel it benefits creators highly but with the existence of these platforms may cause disparity rather than unification as the chain is intended. Progressively having so many different companies working with blockchain could see royalties and other points of revenue get more confusing as the collection agencies would have to work even harder to discover them. They could arguably be detrimental to the music industry without finer clarification and regulation.

Summary

Blockchain can create a faster and safer system in which artists get paid, fundamentally the music industry has been slow to acknowledge. There is a clear yearning for clarity but felt that the consumer consumption stumps artist wellbeing integrity and longevity within the music industry.

The industry was not ready for the digital age in turn artist & musician revenue than had to sacrifice for music labels to turn a profit. I think blockchain has a lot of prototypes and people wanting to bring it to market through various formats, but traction overall has been slow. However, Blockchain unveils the need in transparency across the industries both consumers and creatives want the ability to both to see what's happening behind the scenes and artist want a clear understanding on how their revenue is filtered down the chain Blockchain promises to solve a lot of issues within the music industry but I think realistically it will take some time for both industries to adapt and creatives to learn such skill set of the chain.

If we look over the last twenty years regarding the evolution of the internet and technology there is a hunger to learn, grow and evolve putting technology at the forefront the more the music industry accepts that the better it will be for everyone.

It's clear that there are errors within the industry but excepting of this shift to change the industry will only be known in time.

Entrepreneurs and pioneers of Blockchain need to continue and find unification for Blockchain to be at the forefront and utilised heavily within the market.

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