

**IS BLOCKCHAIN BENEFICIAL FOR
THE ENTERTAINMENT INDUSTRY?**

Student Name: Oliver Brierley-Jones

Student Number: 1903196

Module Title: Legal & Business Affairs

Assignment Title: Essay

Module Lecturer: Ian Penman

19th January 2020

Index

1. Introduction.....	3
2. What Is Blockchain?.....	3
3. Uses Of Blockchain Within The Music Industry.....	5
4. Legal Implications.....	9
5. Conclusion.....	10
6. Bibliography.....	12

1. Introduction

The invention of blockchain marked a crucial turning point for how companies in all sectors, view the process of managing their intellectual property.

The music industry has been crushed by piracy, artists are receiving extremely low royalty payouts and online security is a major concern for both companies and individuals. This essay will explore the possibilities of how blockchain may be able to solve these issues, in order to create a more sustainable music industry for all parties involved.

What are the benefits of using blockchain technology in music? Can artists and music companies trust blockchain? Will blockchain ever be used at a large enough scale for it to make an impact on the way we protect intellectual property?

2. What is Blockchain?

As the name implies, blockchain technology is a chain of virtual, digital blocks that contain information. The technique of using blockchain was originally expressed in 1991 by a research group with the intention of timestamping documents, that made it impossible to manipulate or backdate them (Decuyper, 2017). Blockchain was widely unused until 2009, when Satoshi Nakamoto, used it to create the digital cryptocurrency Bitcoin.

Blockchain is a type of distributed ledger or database open to anyone, that keeps records of digital transactions between people or organisations without a central administrator, such as a bank or government. Instead, the ledger has a network of chronologically expanding databases that are replicated and are synced via the internet, available to view by anyone within the network, which can be private or public. The block is made up of data, the actual data depends on what the block is being used for, but always includes the sender and receivers information. The block also has a unique Hash which can be compared to a fingerprint, it identifies a unique block and all of its contents. Any changes made inside a block cause changes to its hash, which is what makes hash's very useful when one wants to find information on any alterations made to a block. The final component is the hash of the previous block, this is what links the chain together and makes it secure, as changing one block makes all the other blocks in the chain invalid (Decuyper, 2017).

When a transaction happens, it is collected in a cryptographically protected block which also stores any other transactions that have happened within a certain period of time, before the block is then sent out to the network. The transactions are then timestamped before being added to the chain in a linear and chronological order. Any new blocks of transactions are linked to previous blocks in the chain, which creates a chain of blocks that incorporate every transaction that has happened since the beginning. The chain is updated regularly and every distributed ledger in the network is the same, this enables each member to prove ownership. The whole reasoning behind blockchain technology is to allow for better trust and peer to peer transactions which removes any need for any "middlemen" such as a commercial or investment bank (De León and Gupta, 2017).

On the whole, blockchain is a very secure system. It is very difficult to hack as one would need to hack into not just the block with the desirable data, but would need to hack into all of the blocks in the history of the chain. On top of that, every ledger in the network would need to be targeted at the same time (De León and Gupta, 2017). However, blockchain is not entirely safe and security breaches have occurred in the past.

3. Uses of Blockchain within the Music Industry

Smart Contracts

Smart contracts are self-executing digital contracts which are created using blockchain to store legal agreements between multiple entities. The ability of being able to self-execute means that once an action stated in the contract has taken place, the action will then be triggered automatically in real time. This makes it much less likely for a contract to be breached, removes unnecessary parties, and actions stated within the contract happen instantly (Alkaysi, 2019).

One use of smart contracts, is to make payments happen faster. Throughout the history of the music industry, artists and songwriters have always been the last party to get paid. Not only that, but artists may only receive a small percentage of the earnings generated and typically record labels and publishers will only distribute payments twice per year, with a proportion of those payments possibly including royalties that were generated more than 2 years previously (Lorinczi, 2019). This makes it difficult for the creators to predict their earnings and have good cash-flow.

Smart contracts enable the ability for copyright holders of the song, such as the artist, label and collaborators, to be paid instantly at the point of sale in the form of micro-payments, which would put an end to artists having to wait years for their royalty payments.

Smart contracts and blockchain also have the ability to revolutionize the rights management system. As it stands, labels, artists and music companies are often suing each other over questions regarding ownership and rights (Hu, 2018). These disputes are usually centered around payments being withheld and infringement on copyright. By using a smart contract to store rights information, owners of copyright can automate rights tracking. This would help rights holders have greater transparency and know which works are being used, claimed and licensed, which could mean that courts no longer need to settle most feuds. In some cases, smart contracts could replace the need for a company hiring a lawyer to write a contract.

However, smart contracts are not quite as revolutionary as what they may seem. The complexity of most contracts may be too advanced or complex for a smart contract to execute and it is also worth noting that some of the payment splitting functions in a smart contract are done by using basic code, something that other companies are able to do without the need for blockchain, such as PayPal. When a song is streamed on a digital service provider (DSP) such as Spotify or Apple Music, there are multiple agreements that need to be put in place for this to be legal. This includes agreements between the user and the DSP, and deals between DSPs and record labels/publishers to license the compositions and master recordings. These deals are usually valued at a very high price and can take multiple years for the companies to negotiate an agreement, smart contracts are unable to accommodate deals of that level. On top of that,

many contractual terms state human actions such as “good faith”, this is something only humans can decide on as it is entirely subjective, technology is not able to understand this type of behaviour (Hu, 2018). A better use for smart contracts may lie within automating small or basic deals, such as purchasing a license to use a song in film or TV, as these types of contracts are typically quite straight forward in nature and are not subjective. Although, blockchain must be able to verify that the rights holders do in fact own the work that is being licensed. Otherwise, due to the decentralised network, it may be easier to commit fraud than it is today (Rogers, cited in Hu, 2018).

Live Events

Blockchain could be used to help prevent ticket fraud and scalping in live shows such as music concerts and sporting events. In recent years, the amount of ticket fraud cases has risen, with some concert goers paying up to 8 times the price for a ticket, to then find out the ticket is fake (Dickson, 2017). All transactions on the blockchain are secure, as once a transaction takes place it is permanent, irreversible and cannot be replicated. This prevents double spending, which means blockchain can solve the problem of fake tickets being generated. By incorporating ticket selling on the Ethereum blockchain, data ownership can clearly be located. Blockchain can also help eliminate scalpers. As it stands, touts and ticket-bots can instantly buy tickets in bulk when tickets first go on sale, before reselling the tickets at a much higher price (Ball, 2018). By using blockchain and smart contracts, organisers of events are able to set restrictions on ticket reselling. Companies can also withhold barcodes on tickets until the time of the event, making it harder for fraudulent activity to take place.

Blockchain can further protect the intellectual property rights associated with live events by offering much better transparency. By selling tickets on the Ethereum blockchain, this gives companies the ability to track sales of tickets and add an identity to them. When an individual is purchasing a ticket, they can attach a passport style photo or similar identity verifying asset to represent their identity, this information is then stored onto the ticket, which is on the blockchain. If the individual decides to give or sell the ticket to someone else, the ID is then updated on the blockchain. This technology should help companies fight against automated software, such as bots, from purchasing tickets.

Whilst blockchain could be very beneficial for the live events industry in terms of intellectual property, it may be difficult to scale the technology to the size that is needed. Well known payment companies such as VISA, American Express and MasterCard already have the consumer's trust, so it may be difficult to convince consumers to shift from using normal currencies to using blockchain based currencies such as Bitcoin. Nonetheless, if it is possible to scale blockchain large enough, it could work very well.

Flexible Pricing

Companies and artists could implement dynamic pricing strategies using blockchain by keeping track of the demand for a musical work. Rights holders could increase or lower prices based on supply and demand, and artists who own the rights to their masters or compositions could set the price themselves without the need for complicated backend web technology. Blockchain could also provide records of who has used an

artist's works, which would allow artists to charge certain companies or individuals a higher or lower price, depending on the amount of usage. This could be especially beneficial for artists to give incentive to fans, by offering discounts to those who are listening to the artists music the most.

4. Legal Implications

Trust Issues and Regulatory Uncertainty

While the benefits of blockchain technology are widely known, blockchain has not become as popular in industry as it could be, this is mostly due to the lack of trust most users associate with it (PWC, 2018). One reason for this, is that people worry that potential government regulations may cause difficult changes for them in the future (PWC, 2018). A second reason is due to the complex nature of the technology, many people simply do not understand blockchain in enough detail. This is interesting because the blockchain currency, Bitcoin, was specifically created to create better trust and not to rely on governments to regulate financial transactions.

Data Privacy

The GDPR requires any company or entity that uses the data of members of the EU, to grant rights to those members. One of those rights is for the data to be deleted, the other right is for the data to be modified or updated (Gatto and Bear, 2018). This could be a problem for Blockchain, as once data information is recorded in the ledger, it is very difficult to remove it. This could cause difficulties for music companies that are legally required to comply with the privacy laws. Although with that being said, there are ways to work around this issue, such as using blockchains that are private

or permissioned, by doing this, users are able to control their data (Gatto and Bear, 2018).

Jurisdictional Issues and Identifying Rightsholders

It can be difficult for a company or individual to find out where to purchase a license to use a musical work. If an entity does not acquire the appropriate license to use a musical composition or sound recording in their work, they may face legal issues for infringing on copyright. As there is no centralised database on the blockchain, this could make it more complicated to identify ownership of works, as there is not one standard way of doing so. Furthermore, licenses are typically granted jurisdictionally. This means the type of license granted from one administrator in one jurisdiction, could be completely different from the license granted by the same administrator in another jurisdiction (Gatto and Bear, 2018).

5. Conclusion

Blockchain has the potential to be very beneficial for the music and entertainment industries, but we, as a society, are not at the point yet where we can experience those benefits. It has the power to eliminate piracy and fraud, enable more control over intellectual property, allow artists to be paid faster and remove the need for humans to carry out basic contractual tasks. There has not been enough research and development carried out to evaluate all areas of blockchain and the technology needs to be tested further to ensure no harm would be done to the industry. As a result of this, the general public are not educated nor familiarised enough with the technology to trust it. The only way for

blockchain to be used within the music industry at a large enough scale for it to make a real impact, is for companies such as major record labels or individuals such as superstar artists, who have huge influence over the market, to make a bold statement by exclusively hosting their music via blockchain. Whilst blockchain is indeed highly beneficial, we will not see those benefits during this era of the music industry.

6. Bibliography

Alkaysi, S. (2019). *Blockchain, Smart Contracts, and Reconstructing the Music Industry*. [online] Medium. Available at: <https://medium.com/@salkaysi48/blockchain-smart-contracts-and-reconstructing-the-music-industry-29317e0a9745> [Accessed 24 Jan. 2020].

Ball, C. (2018). *Blockchain and Ethereum -- How Can They Be Used for Events?*. [online] Corbin Ball. Available at: <https://www.corbinball.com/article/42-technology-how-to-use-it-better/224-blockchain-and-ethereum-how-can-they-be-used-for-events> [Accessed 25 Jan. 2020].

Decuyper, X. (2017). *How Does A Blockchain Work - Simply Explained*. [image] Available at: https://www.youtube.com/watch?v=SSo_ElwHSd4 [Accessed 21 Jan. 2020].

De León, I. and Gupta, R. (2017). *The Impact of Digital Innovation and Blockchain on the Music Industry*. [ebook] p.15. Available at: <https://publications.iadb.org/en/impact-digital-innovation-and-blockchain-music-industry> [Accessed 21 Jan. 2020].

Dickson, B. (2017). *Ticket touting and fraud is soaring. Blockchain might be the fix*. [online] The Next Web. Available at: <https://thenextweb.com/contributors/2017/09/30/ticket-touting-fraud-soaring-blockchain-might-fix/> [Accessed 25 Jan. 2020].

Gatto, J. and Bear, A. (2018). [online] Lawoftheledger.com. Available at: <https://www.lawoftheledger.com/wp-content/uploads/sites/777/2018/09/Overview-of-Leg>

al-Issues-with-Blockchain-for-the-Music-Industry-Article-0918.pdf [Accessed 25 Jan. 2020].

Hu, C. (2018). *Are Smart Contracts Smart Enough For The Music Industry?*. [online] BREAKERMAG. Available at:
<https://breakermag.com/are-smart-contracts-smart-enough-for-the-music-industry/>
[Accessed 24 Jan. 2020].

Lorinczi, S. (2019). *Publishing Royalties: The Waiting Game*. [online] Blog.songtrust.com. Available at:
<https://blog.songtrust.com/music-publishing-royalties-the-waiting-game> [Accessed 24 Jan. 2020].

PWC (2018). *Blockchain is here. What's your next move?*. [online] PWC. Available at:
<https://www.pwc.com/gx/en/issues/blockchain/blockchain-in-business.html> [Accessed 25 Jan. 2020].