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Introduction

This essay defines Blockchain technology and analyses its commercial uses, exploring the legal implications of the technology on the music and entertainment industries. It will delve into the laws and legislations that could affect or be affected by Blockchain, and the changing landscape of the industry that may define how revenue is generated and distributed.

What is Blockchain

Blockchain is a decentralised record of transactions or assets that is used to form a digital identity across a peer to peer network. These assets can be tangible, such as a house for example, or intangible, such as intellectual property, and can be open or closed. It is commonly used for cryptocurrencies, data, smart contracts, and ticketing. Cryptocurrencies are a digital currency that utilises cryptography hashing (Buitlin, 2021), usually as a form of security for important data. They can also be programmed to have other functions such as ownership and distribution rights. Blockchain keeps a digital record of transactions in a block, with each block combined to form a chain. As new data is put in, a new block is created that then links to the previous block, placing the data in chronological order (Investopedia, 2020). Blockchain allows people to receive transactions or data without the involvement of a third-party figure, cutting out the middleman and cutting costs. The system cannot be tampered with and nothing can be hidden, any transaction or exchange made can be viewed by those who have permission to access it. As soon as the data is entered, it can not be changed, and any data recorded is regarded as being distributed to whomever it belongs to. If data was to be changed, all the blocks within the chain would have to be altered first. Blockchain transactions are authorised by multiple computers via the internet that work in conjunction with each other to ensure the validity of the transactions prior to them being added to the blockchain (techterms, 2018). The transparency of Blockchain allows people to ensure they are being paid what they should be. It is important that the data is registered correctly as a mistake could lead to the transaction being sent to the wrong person, and it may be difficult to retrieve it. Blockchain is also a useful tool to get funding, as the transactional record it leaves gives proof that money can be handled efficiently.

Bitcoin is a brand of cryptocurrency payment that uses Blockchain technology to decentralise data so that control is not given to one person, but collectively controlled by all users. Bitcoin data is completely irreversible, with transactions being permanently recorded and able to be viewed by anyone (Investopedia, 2020). Blockchain can be used to protect intellectual property by linking the distribution of data and content to its original source (techterms, 2018).

The system also allows for "smart contracts". These are programmes that are stored in a blockchain that begin to run when certain terms and conditions set out by the participants are met and verified by the computers, providing an automated system for the execution of an agreement. This allows for the parties to be certain of the outcome, avoiding loss of time and triggering the next action (IBM, 2021). The participants must decide how the data is represented in the blockchain to create the terms that will trigger the data. Smart contracts can involve the releasing of funds to the rightful owners, such as royalty payments. The transparent nature of Blockchain means royalty payments can be distributed swiftly, something that sometimes can take months or even years if done through royalty distribution societies and other third parties.

Commercial Uses of Blockchain

Blockchain can be used commercially for music and other entertainment industries. Most recent developments have seen how Blockchain technology could revolutionise and save the music industry Billions by changing the way royalties are paid to artists, composers, publishers, and anyone who receives payments for their musical works (pwc, 2021). The technology allows artists to easily receive royalty payments, from entertainment venues or record labels, by being able to trace owners of the original works and all those that contributed to the song/album (Daily, 2020). This is not always a straightforward thing to do when distributing royalties, as there are many different people that ownership could have passed through, or different versions of the works that have different owners. There are also different rights for musical works, the rights of the composition, the rights of the sound recording and the rights of the performer, and these are usually for different people (Producer and artist for example) (Moraes, 2020). This confusion means owners sometimes must be chased up, even royalty associations such as PRS and PPL having to put royalties aside until they are claimed by the owner, with many going unclaimed.

Music Streaming service Spotify launched a Blockchain start-up company in 2017 called Mediachain Labs. The aim of the system is to be able to automatically registers, identify, and track creative works digitally, providing information on who made the works, what it is and where it originated (Gatto and Bear, 2018). Spotify developed the technology as a response to a settlement they had to pay to the National Music Publishers Association (NMPA) due to unpaid royalties. The service did not have mechanical licenses for a lot of its content, their reasoning being that they did not receive the information of who the works belonged to nor could they locate them, a very common problem within the music industry.

Smart contracts, as previously touched on, are another tool that can be used by the music industry to improve efficiency. They are not necessarily legally binding but can include the written terms of an agreement and automatically receive data from/for the interested parties. The use of smart contracts can allow for the reduction of costs by cutting out the involvement of other parties who perform tasks that can be done automatically via the blockchain system. In the music industry, they can be used to automatically distribute royalty payments, manage rights, enforce copyright, and license musical works. Blockchain can be used to enable rights by tracking the exploitation of works and having access to the complete history of ownership. An artist could set out a licensing term for each of their songs so that when they are played, the smart contract automatically sends direct royalty payments that can be received very quickly. They will also be able to receive data on the people who are listening to the songs, such as the number of listeners and the ages and locations of them. Additionally, the contract can also be used to split royalties amongst the different parties involved in the works and automatically send out payments to them, such as the artist, the composer and record label (Majewski, 2021). However, one of the issues with the system is that it doesn't make clear who will be inputting the information and who will be in control of creating the blockchain. This creates a situation where middlemen may still need to be used and does not cover royalties from certain sectors such as individual venues, meaning royalty associations will still be needed.

With the rise of the digital era of music, there has been a lot of speculation over the future of the current framework of generating revenue in the industry. The Fair-Trade Music movement is pioneering the way to establishing an ethical and transparent ecosystem within the industry that serves everyone. They strive to inform creatives and consumers on how they can make ethical choices when creating, distributing, and consuming music (fairtrademusicinternational, 2021). Streaming alone makes up 79% of music industry revenue in the US (Chan, 2020), but independent artists struggle to earn any significant revenue from the big streaming platforms who tend to favour more established artists and keep smaller artists from monetizing their work and growing their audience. This is not helped by the streaming revenue splits that get distributed between the platform, label and publisher, with 15% going to the streaming platform, 30% going to the publisher and 55% going to the record label (Bosher, 2020), leaving even the most established artists without much monetary gain from streaming (O'Dair and Owen, 2019). Some believe that the biggest streaming services do not do enough to dismantle these hierarchies in the music industry. Spotify has the top four record labels take up 87% of its content (Chan, 2020), a service that could play a big part in fairly distributing this power and levelling the playing field, considering the 32% market share that it holds (Mulligan, 2020). Blockchain could offer a new and efficient way for artists to share and distribute music to their fans, by reducing costs involved in middle operations, giving artists more power over pricing, terms, and revenue. The technology is evolving the concept of ownership and highlighting the challenges facing the whole digital marketplace and affirming its stance within the structural development of music commerce (Lovett, 2020). In contrast, it could be debated that Blockchain does not actually create a new revenue structure for creatives, but more so that it is simply a digital form of the corporate structure that already exists within the industry, sold to creatives with the belief that they will be better off by cutting out the middle man (O'Dair and Owen, 2019). Although there are many benefits of Blockchain, the complete demise of record labels and performance right organisations will still create limitations, as they offer a significant amount of resources and a monetary advantage for emerging artists. Music is a cut-throat industry that will most likely always have an element of competition. Up and coming artists still need some connection with established industry resources if they want to compete and reach mainstream level. Artists can gain revenue from other streams such as live performances and direct-to-fan sales, but these rely on an artist's fan base, meaning that newer artists that have not gained an established fan base yet, will not reap the benefits of these revenue streams as much as a renowned artist would. Therefore, it could be argued that the introduction of Blockchain technology and the emerging digital age of music has not in fact created a shift in power (Rogers, 2013).

Another commercial use of Blockchain technology is ticketing. Distributing tickets through Blockchain makes it easier to control reselling and the forging of tickets for events, something that can be dangerous if the tickets fall into the wrong hands. Distributing tickets this way would be useful for people who plan events that are in high demand, and have high re-sale potential, as it gives more control over who has access to resale tickets and also avoids website crashes when tickets go live. It also gives sellers more control of the market, as resellers will have limited access and sellers will have more privacy and security in relation to data breaches (eventmb, 2020).

Legal implications of Blockchain

There are both positive and negative legal implications of Blockchain technology. First, the recorded data within the Blockchain can be used as a defence in legal cases as it provides digital evidence of ownership. As it has been discovered, once this information has been implemented into the blockchain, it can not be tampered with and therefore serves as a solid piece of evidence in court (lawyermonthly, 2020). It also helps to simplify Intellectual Property partnerships with the use of smart contracts to allow fractional ownership (lawyermonthly, 2020). On the other hand, there are also issues that come with fractional rights. These occur when the licensor does not own all the rights to a musical work and the person with a smaller share of the rights brings a copyright infringement claim to the licensee (Gatto and Bear, 2018). There is a proposed Music Modernization Act that creates a database to address this issue by informing the owner of all the rights holders involved in the work. MMA offers licensees protection by giving out a mechanical license. The problem with this is it does not cover fractional rights issues in relation to other rights. Obtaining the right licenses for musical works can be difficult, as those that wish to exploit them, who don't own them, must have the correct licenses for the correct use of the works, either for the composition, the sound recording or both. This can become a problem as there are many different licenses depending on how the works are being used, for public performance, synchronization, master use and many more. It is also not always known who these licenses need to be obtained from, an organisation, record label, artist, or publisher for example. This can complicate things more if there is not already one database where information of ownership is stored.

In addition, there is also an issue with data protection. The identity of participants in a blockchain is not always displayed, however the fact that data cannot be changed once it is submitted raises problems in relation to Article 17 of The EU General Data Protection Regulation (GDPR). One of the rights under GDPR is this right to be forgotten (activemind.legal, 2021), and another is the right to modify your personal information, and there can only be exceptions to these if it is necessary for public health purposes/in the public interest (ICO, 2021). This is a cause for concern for a system that does not allow data to be modified, and for those who must adhere to privacy laws. There is however a solution, with some companies using private blockchains that need permission to be accessed, but a private blockchain means other people will not have access to the data, which will be difficult when trying to find the history of a musical work for those that want to exploit it.

Furthermore, Jurisdictional Issues may occur if a person does not have the appropriate license to exploit, synchronize or perform a musical work, that could lead to a copyright infringement. Licenses for musical works are given on a jurisdictional basis and these can differ for different jurisdictions. The US gives out public performance rights through performance rights organizations, and in the UK, these can be given through collection societies for mechanical and performance rights.

Conclusion

In conclusion, Blockchain has the potential to be a destructive force and transform the way the music industry operates the distribution of royalties and funds (Arcos, 2018). However, there are some legal implications and teething issues that need to be addressed. Blockchain does not fully cut out the middleman as of yet, as the sheer power of major labels/corporations within the industry is a tool that artists still need to exploit, and performance rights organisations still need to collect royalties from certain areas such as individual venues for example. There is also the issue of who will oversee inputting the data for the Blockchain and how this may counteract the ease and security of the transaction. It is clear that there is a gap being formed in the market for Blockchain start-ups and alternative ways of generating and distributing revenue/data, but whether Blockchain will be efficient enough to completely replace traditional market structures is yet to be seen.

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